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No. 2401

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CONTENTS

CZECHOSLOVAKIA

February 1983 Economic Results Summarized (Vaclav Cap; HOSPODARSKE NOVINY, 28 Mar 83).....	1
Significance of Convertible Ruble Viewed (Lubomira Cimova; SVET HOSPODARSTVI, 16 Mar 83).....	6
Authorization To Provide Private Services Explained (Jaromir Sychorovsky Interview; TVORBA, No 9, 1983).....	9
Excessive Overtime Criticized as Lowering Productivity (Karel Brumovsky, Vaclav Schreiber; HOSPODARSKE NOVINY, 28 Mar 83).....	12
Question of Measuring Enterprise Profitability Discussed (Vaclav Filip; HOSPODARSKE NOVINY, 25 Mar 83).....	18
Need for Agricultural Profitably Viewed (Kveta Burianova; FINANCE A UVER, No 2, 1983).....	21
Theft of Shortage Construction Materials Condemned (ZEMEDELSKE NOVINY, 15 Mar 83).....	38

GERMAN DEMOCRATIC REPUBLIC

Indebtedness to West Seen Benefiting Inner-German Trade (Horst Lambrecht; DIN-WOCHEBERICHT, 10 Mar 83).....	41
Symposium Held on Use of Microelectronics in 1980's Production (Christa Zurawski; WIRTSCHAFTSWISSENSCHAFT, Mar 83).....	58

Cooperation With Mozambique in Fishing Industry Reviewed
(W. Mahnke; SEEWIRTSCHAFT, Feb 83)..... 72

HUNGARY

Fiscal Specialists Interviewed for Prize Work
(Imre Boros, Kalman Meszaros Interview; FIGYELO,
14 Apr 83)..... 77

POLAND

Monetary Policy Aspects of Economic Reform Discussed
(Janusz Weiss; SLOWO POWSZECHNE, 21 Mar 83)..... 83

CZECHOSLOVAKIA

FEBRUARY 1983 ECONOMIC RESULTS SUMMARIZED

Prague HOSPODARSKE NOVINY in Czech 28 Mar 83 p 2

[Article by Dr Eng Vaclav Cap, CSc, Federal Bureau of Statistics: "February 1983"]

[Text] Economy's entry into 1983 in the area of generation of resources was successful in view of the tasks planned for the first 2 months of the current year. Plans of enterprises for the volume of industrial production and construction were met or exceeded as was procurement of basic animal products, and public transport provided the requisite goods transportation. The results also indicate that the plans for adjusted value added are being exceeded and that some positive structural changes in production continued.

Nevertheless, the overall positive assessment for January and February is far from providing a guarantee that the conditions for carrying out this year's demanding tasks of the state plan had already been created together with laying a foundation for successful accomplishment of tasks in the years of the Seventh Five-Year Plan.

The overall trends and the attained level of intensification from previous years are far from satisfactory. They require that systematic attention be paid everywhere to a more emphatic application of scientific and technical progress, attainment of a high degree of efficient utilization of fuels, energy, raw materials and their savings, further a more efficient and socially more beneficial structure of production and more effective participation in international division of labor, particularly into the process of international socialist economic integration.

In February, for the same number of working days as in the same month a year ago (for January and February of this year there was 1 additional working day) the volume of industrial production increased by 2.5 percent and for the first 2 months by 5.2 percent against the comparable period a year ago. In working out and specification of the state plan at the conclusion of last year the specified tasks for 1983 called for achieving an increase in production by 2.4 percent. However, as the plan was exceeded in the concluding months of last year, the increase in industrial production needed for meeting the plan is on the order of 1.7 percent.

A greater effort must be developed by all components of management and, understandably, enterprises toward the requisite differentiation of increments in production according to individual sectors, branches and products; they must reduce those types of production that are of lesser economic benefit to society and promote and create room for effective production. The point is that the decisive factor is not the overall gross volume of production, but what extent of national income it can produce.

In the first 2 months of the current year--continuing last year's development--this principle found application in some sectors. This applies in the first place to the electrotechnical industry. Production of the electrotechnical industry increased in February by 5.6 percent, for January and February by 10.2 percent in comparison with the same period of last year. The yearly state plan envisions an increase by 4.3 percent. Here the responsible ministerial department worked out a demanding time schedule for the production volume plan and is progressing even more resolutely in the specified task in the area of adjusted value added. The tie-in of the data indicates that it also strongly determines price development in its plants. The production plans of enterprises, in keeping with the resolution of the federal ministry of the electrotechnical industry, were namely met in 2 months even at the mentioned high rate of production increases to 99.3 percent and that of adjusted value added to 98.5 percent (even though according to an estimate they increased by 13.4 percent in comparison with January and February of last year).

A relatively high increment in production for January and February amounting to 5.8 percent was achieved by machine building enterprises and to 7.4 percent by the wood-working industry enterprises, even though enterprise plan had not been fully met in either sector. In the food industry production increased by 8.3 percent, in light industry by 2.8 percent; that spells in essence a successful start toward meeting the planned tasks. Given the basic direction of economic policy, it is far more complicated to assess the development of production in the metallurgical, chemical and construction materials industries: Any significant exceeding of the planned rates in these sectors amounts to a high consumption of fuels, energy and imported raw materials in the economy and can be rated positively only if a high rating can be given to increases in production for exports in excess of the plan. The axiom applying to all sector and branches of the industry is that economic calculations, compatibility of products with the worldwide level and an assured market are the key requirements for development of production.

Favorable development was encountered in January and February in extraction of fuels and in generation of electric power. At an increment in industrial production of 5.2 percent, generation of electric energy increased only by 1.2 percent. While mining of bituminous coal decreased in February, for 2 months it was higher by 1.5 percent than in last year's January and February, mining of brown coal and lignite was higher by 11 percent. Supply of fuels was smooth. Every excessively consumed ton of coal and kilowatthour slows down the functioning of the economy, decreases the national income and the potential for its higher generation and, for that reason, particular attention will have to be paid to consumption now as before.

Marketing in the industry increased in the 2 months by 4.5 percent in comparison to the same period last year. Its characteristic feature, same as last year, was easier acquisition of customers and meeting of deliveries for export into socialist countries where the increase was 5.6 percent. Meeting the plan of deliveries for the domestic market poses more difficulties; these increased by a mere 3.4 percent. Deliveries to nonsocialist countries increased by 6.8 percent. For the time being there also was a high increase in deliveries for use in production and operations, which indicates a trend toward increased stockpiling in production. Nevertheless, almost 30 percent of industrial plants failed to meet their production plans.

The plan of adjusted value added was met by industrial enterprises in 2 months to 102.2 percent, i.e., better than the plans for production volume. It is an indication of continuing attempts to orient efforts toward reducing material costs in production as well as promoting an assortment of products involving a higher share of labor value added. It is estimated that the index of adjusted value added in January and February reached 108.5 percent, but industrial enterprises probably failed to correctly reflect in their calculation the occurring price changes.

In construction the volume of production in February increased by 1.5 percent, for the 2 months by 11.9 percent in comparison with the same period last year. Construction enterprises met their plans for the 2 months by 103 percent.

The schedule for procurement of basic animal products for the 2 months was met. In comparison with the same 2 months of last year the increases in procurement amounted to 97 million liters of milk and 25 million eggs; slaughter animals, including poultry, remained about the same. Improved supplies of high grade fodders are evident in production of milk and eggs.

From the very start of the year it has been evident that the sore spot in carrying out the plan will be foreign trade with nonsocialist countries. Export to these countries in the 2 months decreased by 10.8 percent and, due to the requisite tightening of the economy, imports decreased by 25.9 percent. On the other hand, export to socialist countries increased by 16.1 percent, imports from them by 17.1 percent.

After a sharp increase in personal earnings during January, in February their dynamics slowed down. They increased by 5.2 percent for the 2 months in comparison with January and February of last year. Lower increases in personal expenditures were reflected in the continuing growth of potential personal purchasing power. By the end of February personal savings reached Kcs 182.8 billion and were higher than a year ago by Kcs 13.3 billion. Money in circulation increased by Kcs 1.8 billion and by the end of February amounted to Kcs 49.8 billion.

Basic Indicators of National Economy's Development in February 1983
Increases Over Comparable 1982 Period (in percent)

<u>Category</u>	<u>February</u>	<u>January to February</u>	<u>State Plan¹</u>
Deliveries of the Centrally Administered Industries for:			
- investments at wholesale prices	-	-2.9	5.2
- domestic market			
at wholesale prices	-	3.4	2.1
at retail prices	-	3.2	3.5
- export to socialist countries			
at wholesale prices	-	5.6	4.8
at FOB prices	-	6.8	5.3
- export to nonsocialist countries			
at wholesale prices	-	6.8	2.5
at FOB prices	-	2.8	3.4
- other sales for industrial production			
and operations at wholesale prices	-	4.7	-
volume of industrial production	2.5	5.2	1.7 ²
average number of employees	0.8	0.9	0.7
labor productivity based on industrial production	1.7	4.3	1.7
Construction			
construction work performed with internal labor resources	1.5	11.9	2.0
average number of employees	0.4	0.3	0.2
labor productivity based on construction work	1.1	11.6	1.9
housing units delivered by construction firms	-38.4	-27.6	-5.4
Procurement of:			
slaughter animals (including poultry)	1.3	0.0	1.2 ²
milk	12.3	13.7	1.1 ²
eggs	7.1	5.9	2.2 ²
Retail Turnover			
of the main trade systems	3.8	1.7	2.2 ^{2;3}
Foreign Trade⁴			
export to socialist countries	1.2	16.1	6.0
export to nonsocialist countries	-25.4	-10.8	1.7
import from socialist countries	-11.7	17.1	11.0
imports from nonsocialist countries	-31.0	-25.0	7.5
Personal Earnings			
of which income from wages	3.5	4.2	1.5 ²
Actual cash expenditures	4.5	3.7	2.6 ²

FOOTNOTES:

- ¹ Increases compared to expected 1982 results.
- ² Increases compared to actual 1982 results.
- ³ All trade systems.
- ⁴ Data on actual results refer to actual transactions and the state plan (in contrast to overall actual results) does not include unplanned actions within the framework of cooperation, unplanned reexport trade, exchanges, conditional trade transactions, etc.

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CZECHOSLOVAKIA

SIGNIFICANCE OF CONVERTIBLE RUBLE VIEWED

Prague SVET HOSPODARSTVI in Czech 16 Mar 83 pp 1, 5

[Article by Lubomira Cizova: "Significance of Transferable Ruble--Collective Currency of CEMA Countries"]

[Text] The 36th plenum of CEMA which took place in Budapest in 1982 approved the program of coordination of plans of development of national economies of CEMA member states during the 1986-1990 period. The program is to contribute to the intensification of production and a higher standard of living.

One of the most important tasks of cooperation in planning is the coordination of investments in the agreed upon projects and jointly defined areas. The significance of this coordination constantly increases due to the increasing scope of projects included in the long-term target programs of cooperation (DCPS). The implementation of these DCPS presumes a mobilization of considerable resources, including financial resources.

It is estimated that the implementation of DCPS measures in the area of material production during the 1981-1990 period will require approximately 70-90 billion transferable rubles. This amount is approximately 10 times as high as the value of the investment program of the agreed upon plan of multilateral integration measures during the 1976-1980 period.

The source of financing of the joint investment program of CEMA member states is the collective currency--the transferable ruble whose significance, due to the growing scope of joint investments, will steadily increase. This will, of course, require an improvement of the mechanism of its circulation. In the periodical VOPROSY EKONOMIKI, the Soviet author J. Konstantinov expresses the opinion that the essence of the transferable ruble lies in its valuation from three points of view: a) as a currency; b) as the element of the economic mechanism of socialist integration, and c) as a tool of external economic policy of socialist countries.

If we judge the transferable ruble according to the first aspect, that is, as one of the financial tools of credit, we must state that it does not have its own intrinsic value expressed in past labor input. As a collective currency, the transferable ruble operates independently as a tool of the multilateral clearing system.

The holder of transferable rubles can deposit them at the International Bank of Economic Cooperation [MBHS] at interest. Transferable rubles are used for clearing, term and investment credits as well as for payment of shares owned by the members in the international economic organizations formed within CEMA. The balances on the noncommercial accounts also are settled with transferable rubles. Essentially, however, transferable rubles are primarily used for all types of commercial operations carried out within MBHS.

Every MBHS member state can obtain transferable rubles from several sources. First, there are credits from the MBHS and the International Investment Bank [MIB], interstate credits, export of commodities and services to other countries of the socialist community, and also conversion of national currencies of CEMA member countries into the collective currency in noncommercial payments (the conversion is carried out according to the appropriate coefficient).

According to J. Konstantinov, the MBHS carried out clearing operations among the CEMA states in the total exceeding 1 billion transferable rubles during the 1964-1981 period.

The collective currency of CEMA member states also performs an important function as an element of the economic mechanism of socialist integration. Mutual clearing operations among 10 countries of the socialist community are carried out on the basis of the transferable ruble at the present time. The volume of these operations through the MBHS during the last decade was as follows (billion transferable rubles):

Country	1970-1980 Total	1970	1980	1981
Bulgaria	67.2	2.7	10.5	11.7
CSSR	94.8	4.5	13.6	15.2
Hungary	65.1	2.8	9.9	11.5
GDR	124.3	6.2	17.4	19.4
Poland	97.6	4.3	5.0	14.3
Romania	35.5	1.7	4.5	5.5
USSR	293.5	13.0	5.1	54.1
Cuba	21.9	-	5.1	6.2
Mongolia	5.1	0.2	0.8	1.0
Vietnam	-	-	-	1.3

The increasing role of the transferable ruble is one of the main problems dealt with by the CEMA Permanent Commission for Foreign-exchange Financial Questions. Its recommendations were discussed at several meetings of the CEMA Executive Committee at which it was pointed out that the point at issue was not only the extension of the area in which the collective currency was used. Much more important was the strengthening of the transferable ruble by increased production, among other things, by intensification of international production specialization and cooperation, and by increasing the supply of goods.

Past experiences made it clear, J. Konstantinov pointed out, that the significance of the collective currency of the socialist states has been increasing in direct proportion to the development of socialist economic integration. The more varied its forms, the larger the area in which the transferable ruble is used. As production cooperation and joint investment projects increased, this currency also began to be used for financing joint investment projects. These clearing operations are carried out by the MIB, whose basic task is to grant long-term and medium-term credits designed primarily for financing measures related to the international socialist division of labor, production specialization and cooperation, expenditures on expansion in the common interest of the fuel-energy and raw materials basis, construction projects in other sectors which are in the common interest from the standpoint of economic development of the bank member states and so on. Seventy percent of the MIB capital stock consists of transferable rubles.

The transferable ruble also performs an important function as one of the tools of external economic policy of socialist countries. It contributes to the strengthening of the unity of the socialist community by promoting its integration. Despite the complex situation on the world market, the Soviet Union continues to supply its CEMA partners with vitally important raw materials, primarily fuels and energy. These shipments are billed in convertible rubles. The prices of Soviet raw materials, K. Konstantinov points out, are substantially lower than world prices, a fact which represents a considerable financial advantage for the customer. According to a rough estimate, the socialist states importing Soviet crude oil thus saved \$3 billion annually during the 1974-1979 period. On the other hand, the USSR offers extensive possibilities as a customer for the production of the processing industries of the socialist states.

Credits are another form in which the transferable ruble is used as a tool of USSR economic policy in relation to foreign countries. During the last 5-year plan, the USSR granted CEMA member states advantageous credits at 2 percent interest repayable within 10 years for balancing the trade balance in connection with the revision of contract prices.

Advantageous credits also contribute to the gradual equalization of the level of economic development of individual CEMA member countries. Thus the MBHS granted, for example, Mongolia credits at advantageous terms in the total amount of 1.7 billion transferable rubles during the 1971-1980 period. Because of the low interest rate, Mongolia thus saved 15 million transferable rubles. The MBHS advances credits to Mongolia, Cuba and Vietnam at a 0.5-2 percent interest rate (2-5 percent interest rate applies to other countries).

The transferable ruble has a statutory gold content of 0.987,412 gram of pure gold in the unit (thus coinciding with the gold content of the Soviet ruble). No linkage between them, however, can be deduced as to their content and function. They are two completely different currencies with different reproduction bases and different areas of action. In performing its functions, the transferable ruble essentially does not replace, but supplements the national currencies of CEMA member states. For multilateral clearing operations, this collective currency has a fixed rate of exchange in relation to all 10 currencies of CEMA member states for both commercial and noncommercial payments as well as to 13 freely convertible currencies and 5 additional non-convertible currencies.

CZECHOSLOVAKIA

AUTHORIZATION TO PROVIDE PRIVATE SERVICES EXPLAINED

Prague TVORBA in Czech No 9, 1983 p 5

[Interview with JUDr Jaromir Sychrovsky, expert assistant at the Department of Financial Law and Finance of the Law Faculty of the Charles University in Prague by Jaroslav Hejkal : "For the Benefit of Citizens"]

[Text] Changes in our legal system which from the beginning of this year regulate rendering of small services to the population by individual citizens have met with considerable response from the public. For this reason we asked JUDr. Sychrovsky for an interview.

[Question] What changes were made? Can you describe to us briefly the fundamental ones?

[Answer] By the amendment to the law on national committees the local organs of state power and administration have been accorded many new and broader rights which make it possible to create better living conditions. This is particularly true of services, an area where there were reasons for dissatisfaction and complaints. Apart from the amendment to the law on national committees changes were effected also in the Civil Code whereby conditions were created for expansion and improvement of services. The amended Civil Code allows the citizens to perform for one another or for the organizations various jobs and services for payment. Although this activity could be carried out according to the literary meaning of the Civil Code even prior to the amendment, it could be done only free of charge. It would be, of course, contrary to the nature of our socialist economy, if no restrictions were imposed on the performance of services, small-scale artisan production, various repair services and so on. For this reason, such an arrangement was chosen which both respects society's interests and stimulates citizens' initiative.

[Question] What specific possibilities does this revision of regulation offer?

[Answer] In the first place, a citizen who wants to perform various services must obtain in advance a permit from the local (municipal) or okres (district) national committee depending upon the territory in which planned activity is

to be carried out. The governments of both republics designated by the government order a group of persons which can be granted a license. At the same time, they specified terms for such a license. The license can be obtained for performing small artisan jobs including maintenance of houses and apartments. This includes for example services performed by bricklayers, locksmiths, house painters, carpenters, varnishers, roofers, tailors, makers of custom-made bedclothes, shoerepairmen and so on. The license can pertain also to various personal services performed customarily in beauty parlors, barbers' and hairdressers' shops or jobs such as excavation, house cleaning and so on.

[Question] Which citizens can obtain such permits from the national committees?

[Answer] According to the government decrees, these permits can be naturally obtained by the citizens of legal age who from the standpoint of labor force planning represent so-called supplementary supply. In other words such workers who will perform these services as a job supplementary to their regular employment or pensioners, housewives and the handicapped.

[Question] A healthy craftsman who still has a long time to wait for retirement can perform these services as part-time job only?

[Answer] Essentially it is so with one exception which applies to the communities where certain types of services cannot be provided for the population either by the socialist sector or from the supplementary labor supply mentioned above. In such instances can the national committees grant the permit to perform services even to those citizens who will carry out this activity as their main job. This should apply to services and work in the areas with a labor shortage which could not be economically performed in another form. Which of these services and activities could be expediently performed in this form was not exhaustively stated by the center, because it will depend upon specific conditions and situation in the area in question.

[Question] How the expansion of these services has been affected by the changes in the law on the individual income tax?

[Answer] The amendment to this law creates for the citizens rendering services approximately the same tax conditions as apply to the wage tax paid by the citizens in permanent employment. The burden of these two taxes differed prior to the amendment of the law. The previous income tax structure was namely marked by a steep progressive tax rate. And the consequences? The rapidly rising tax rate practically discouraged the citizens from rendering services on the basis of a permit (according to a 1965 measure, the national committees were authorized to give a permit to citizens to engage in some activities) and rather encouraged moonlighting. However, the changes effected in the income tax stimulate the citizens to engage in these services and to legalize their previously unlawful moonlighting on the basis of a permit granted by the national committee.

[Question] Where is the financial incentive of the amended law on the income tax?

[Answer] In the first place in the following: if the annual income of a small artisan does not exceed Kcs 6,000, he does not have to pay any income tax. If the incomes from services and artisan activity exceed this limit, they are subject to taxation, but separately from the taxpayer's other incomes. This represents a significant advantage because the progressive tax rate is thus very much reduced. In addition, the amendment introduces a number of additional advantages.

[Question] What will be the practical results?

[Answer] For example for the determination of net income. If the taxpayer does not produce documentary evidence on material cost of his legalized operations, the national committee will allow him a 20 percent deduction on his gross income. An additional Kcs 6,000 can be deducted by the taxpayers with two or more dependents who were not recognized as dependents with reference to the taxpayer's other taxes or other taxpayer. Moreover, the tax brackets have been revised in favor of the taxpayer.

[Question] Can you give us a concrete graphic example?

[Answer] Under the previous regulations the tax for example on Kcs 25,000 gross income amounted to 26.8 percent of net income that is Kcs 6,025 for a married taxpayer with one dependent child. According to the new legislation, the tax in this instance is reduced to 14.8 percent or Dcs 2,080.

[Question] What about a comparison of the individual income tax with the wage tax.

[Answer] Let us consider the same example of service operator's gross income of Kcs 25,000. After making a 20 percent deduction for material expenditures Kcs 20,000 is subject to tax, and the income tax for a taxpayer with two dependents amounts to Kcs 2,080. If the annual wage is Kcs 20,000, the wage tax paid by the worker with two dependents is Kcs 2,338. It follows from this that within the same income bracket a taxpayer paying the income tax is better off than the taxpayer paying the wage tax.

[Question] The unquestionable reason for this is precisely the society's interest in the proper expansion of services to the population.

[Answer] Certainly. I must emphasize, however, that it is not just any, but a regular expansion of services. The new measures should benefit the citizen citizens--both those who need these services and those who legally provide them--and not the moonlighters. Since they have been enacted by a law of the Federal Assembly and decrees of national governments, they represent regulations of considerable intensity and must be also respected as such.

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EXCESSIVE OVERTIME CRITICIZED AS LOWERING PRODUCTIVITY

Prague HOSPODARSKE NOVINY in Czech 28 Mar 83 p 5

[Article by Karel Brumovsky, LLD and Eng Vaclav Schreiber, Federal Ministry of Labor and Social Affairs: "Overtime Work--An Acute Problem"]

[Text] Over the past several years the governments of the CSSR, CSR and SSR, central authorities, the Central Council of Trade Unions and lower trade-union organizations adopted various measures toward curbing the extent of overtime work. However, it has not been possible so far to achieve a qualitative turnover, exceptions to the rule are becoming a system in itself and in a number of sections there is a permanent and disproportionately high share of overtime which often serves no purpose and is inefficient. Another measure adopted at the outset of the year is the resolution of CSSR government no. 7/1983.

The CSSR gradually introduced a 5-day work week and the stipulated weekly working hours of workers in the production sphere were cut down from 48 hours to approximately 42 hours, i.e., by 12.5 percent.

The prerequisite for implementation of a shorter working time was achievement of the necessary increases in production by improved growth of hourly productivity of labor through creating the requisite technical and organizational measures and improving the working morale.

This task still could not be met in its full extent. There still persists a relatively high level of overtime work which thwarts the intended purpose, particularly in sectors where the time needed for replenishment of manpower must be prolonged as much as possible. The key causes for this unsatisfactory state of affairs are primarily shortcomings in organizational and management efforts, in supply-demand relations as well as shortcomings in work discipline and morale.

Losses In Working Time

Since 1950 overtime in the industry fell below the 5 percent level only in the years 1966-1968, i.e., during the period of intensive preparations for introducing the 5-day work week. After introduction of a reduced weekly working

time the level of overtime increased once again, not only by its relative share but absolutely. A high level of overtime work has been persisting also over the past several years, despite the planned slow-down in growth of production and there also appeared a significant decrease in the growth of hourly productivity of labor by workers (see table).

**Development of Hourly Productivity of Worker's Labor and Overtime Level
(Increment in productivity of labor between years - gross production per 1 hour of worker's performance in percent)**

	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Productivity per hour						
worker's performance	5.4	4.8	3.3	3.4	1.7	0.7
percentage of overtime work	6.0	5.7	5.9	5.8	5.7	5.3

A considerable degree of intrashift time losses is shared, according to plant management personnel, by marketing problems (1 percent per worked shift) and shortages in the national industrial distribution system (an average of 4 percent per worked shift). Failure to maintain work discipline also affects the unsatisfactory utilization of working time. The time allocated for meals and rest (15 minutes according to paragraph 89 of the labor codex) is exceeded by 15 to 25 minutes, primarily due to the fact that a considerable number of personnel still do not avail themselves of plant cafeteria services.

According to a survey conducted in 67 enterprises, intrashift losses in working time due to short absences amount to an average of 90 minutes a month per worker; of that, 55 percent accrues to examination or treatment in health facilities, 10 percent to repair of apartment furnishings and approximately 35 percent to various personal errands at administrative offices, shopping, etc.

Efficient utilization of intrashift working time and development of overtime work is adversely affected by imbalanced implementation of production tasks in the course of a month, a quarter, or a year. For example, the number of overtime hours worked by a single worker in the fourth quarter of 1982 was higher by 14.5 percent than it was in the third quarter of the same year.

The extent of losses in intrashift working time as well as the extent of overtime work is considerably differentiated in individual industrial sectors. For example, according to the opinion of plant management personnel, losses in intrashift working time in the consumer goods industry in 1980 amounted to an average 14.2 percent, in power engineering to 21.3 percent and in the fuel section to 21.1 percent.

Excessive Scope of Overtime

Overtime work in 1982 was lowest in the CSR clothing industry at 2.2 percent, in gas manufacture 2.7 percent and in metallurgy, to include ore mining, 3.8 percent; it was highest in the CSR food industry at 8.4 percent, in the SSR construction materials industry 7.5 percent, in heavy machine building 7.4 percent and in coal mining 6.9 percent.

Excessive overtime work is found also in other sectors of the national economy. For example, in railroad transportation it amounted in 1982 to 7.2 percent, of which 16.7 percent accrued to train crews and 12.1 percent to engine crews; in Czechoslovak State Automotive Transportation it was 13.4 percent, in mass urban transport 7.8 percent. The level of overtime work at state farms in 1982 amounted to an average of 7.7 percent in the territory of the CSSR, however, from that 9.1 percent accrued to CSR territory and only 4.6 percent to SSR territory.

Differences in the level of overtime work become clearly manifested through their comparison between individual VHJ's [economic production units] or enterprises. In 116 industrial VHJ overtime work in 1982 ranged from 1.8 percent to 21.6 percent; an above-average share of overtime work (i.e., more than 5.3 percent) applied to 44 VHJ, i.e., 37 percent.

The different levels of overtime work between production organizations is affected to a certain extent by the nature of production activity, the seasonal nature of work and, in the case of enterprises engaged in final production, by serious problems in the supply-demand relations. Nevertheless, the largest share is due to subjective effects, and dealing with them is fully within the possibilities of production organizations both in regard to decreasing losses in intrashift working time and reducing the excessive levels of overtime work.

CSSR Government Resolution No. 7/1983

On 13 January of the current year the agenda of the CSSR government dealt with the "Proposal for Authorizing Overtime Work Beyond the Limits Set by the Labor Codex and Exemptions from the Ban on Night-time Work by Women for the Years 1983 through 1985" and adopted in this regard resolution no. 7/1983. In view of the fact that the sphere of jobs which call for exemptions for overtime work and exemptions from the ban on night-time work by women remains essentially unchanged, only partial modifications were made in appendix no. 1 of this resolution in regards to the still valid job index. In appendix no. 2 the government approved measures for limiting the extent of overtime work and night-time work by women.

According to the CSSR government resolution no. 7/1983, overtime work can be performed at the direction of an organization or with its consent only in the extent absolutely necessary, if it involves a pressing social interest. The labor codex limits its extent per individual worker to a maximum of 180 hours per year and 8 hours per week. The CSSR government after consultation with URO [Central Council of Trade Unions] (for organizations controlled by federal central authorities), the CSR government after consultation with the Czech Trade-Union Council and the SSR government after consultation with the Slovak Trade-Union Council (for organizations controlled by the central authorities of the respective republics and by national committees) can for serious reasons and for a temporary period authorize overtime work also beyond the specified limits.

In spite of overall moderate improvements in the area of overtime work there persist shortcomings in abiding by the increased limits authorized by ministerial departments on the basis of exemptions authorized by the government.

The results of control activities by organs of the Czech Bureau of Labor Safety in regards to compliance with regulations applying to overtime work and the findings made by the State Mines Administration in controlling compliance with the limits for overtime work show that in some cases limits for overtime work have never been specified, that the specified limits for overtime work are being exceeded in some organizations and that ban on overtime work is not being complied with at work places containing harmful substances; youthful workers work over 10 hours only in isolated cases. However, imposing of sanctions by organizations or superior organs for failure to comply with labor-law regulations in ordering overtime work is not commensurate to the extent of their noted occurrence.

The number of exemptions for overtime work beyond the limits specified by the labor codex often depends on the deepening specialization of workers in a number of activities and concerns only a small number of workers. It turns out that the enumeration of activities for which exemptions are authorized is not always the decisive indicator for the overall extent of overtime work. This finding was taken as a basis by the CSSR government in authorizing by the above mentioned resolution for the years 1983 through 1985 the scope of exemptions which essentially agrees with the list of professions approved for the year 1982. Ministers and key personnel of federal central organs in agreement with the corresponding organs of trade unions for the organizations under their jurisdiction determine the limits, differentiated according to specific conditions, for overtime work in excess of 180 hours in a calendar year and in excess of 8 hours per week and by 31 January of each year will inform the state work safety control organs of the limits specified in the framework of the exemptions authorized by the government.

Authorized Exemptions

The government further approved measures for limiting the extent of overtime work (and simultaneously also measures for limiting night-time work by women) specified in appendix no. 2 to the mentioned resolution and charges all ministers and heads of federal central organs with enforcing their implementation.

Intrinsic to these measures is the task for systematic implementation of intents leading to limiting overtime work in accordance with the long-term program for its reduction; in this context there must be improvements in management, promotion of work discipline, improved utilization of working time, higher use of shift work, promotion of efficiency measures, remuneration according to demonstrable results of work, use of implementation counter proposals and systematic verification of the effectiveness of these measures.

Another matter that needs implementing is that the authorized exemptions for overtime work be applied only to work places where measures for full utilization and adherence to working hours had been adopted and applied in practice. In cases where overtime work by an individual is to exceed the limit of 600 hours per year, the limit must be set--within the framework of the authorized

exemption--by the appropriate minister in agreement with the trade union organ with the proviso that it will stipulate at the same time the carrying out of effective measures for expedient limitation of overtime work.

The measure calls for mid-year assessment of the development of overtime work with the appropriate organs of the Revolutionary Trade Union Movement, in the presence of representatives of the corresponding state work safety control organs, as an integral part of evaluation of economic results. Organizations which show more than 4 percent of overtime work in their records must discuss its monthly development with control organs for meeting the economic plan and adopt specific measures toward its reduction. The justification for this measure was provided by the fact that this limit was exceeded in 1982 by 57.1 percent of industrial VHJ's.

As regards wage funds acquired through limitation of overtime work and objectivization of labor expenditure standards, an obligation is imposed for using them to provide incentives for improved output and hourly productivity of labor and not allow remuneration for overtime work to be performed in other forms that tend to distort its actual extent.

An integral part of the measure is the obligation to abide by the ban on overtime work at work places where working hours were curtailed due to health reasons, and also in the case of youthful workers, pregnant women and women caring for a child up to 1 year of age. Another obligation calls for cancellation of overtime work granted in excess of the limit specified by the labor codex whenever a superior organ or the state work safety organ determines that the conditions under which the exemption was granted are not being complied with; a final obligation calls for imposing commensurate material sanctions against responsible leading personnel who violated regulations regarding overtime work.

A factor contributing to implementation of this measure already in 1983 will be public work safety checks which will also include check-ups on overtime work.

Sectoral Programs

The current extent of overtime work considerably exceeds the requisite measure needed for dealing with extraordinary situations caused by objective causes and to a considerable degree compensates for poor utilization of intra-shift working time and is used as a crutch for dealing with organizational shortcomings in and between plants. Overtime work also constitutes a considerable part of the earnings of some personnel who have a vested interest in its perpetuation or increase.

The permanently high level of overtime work which persists even during a decelerated rate of production task increases detrimentally affects efficiency of production with retroactive effects on work morale, employees' state of health and an increased accident rate. It considerably interferes with the basic intent of cutting down on working time; in some VHJ's the actual weekly working hours reaches on the average the original 48 hours or even exceeds them.

One of the basic prerequisites for gradual reduction of the excessive level of overtime work is working out of sectoral programs for reducing overtime work in the years 1983 through 1985. These programs are based on those of VHJ's and their organizations and were worked out at all levels in close cooperation with organs of the Revolutionary Trade Union Movement. Carrying out the intents they contain should produce in the course of the coming years a permanently decreasing trend in the extent of overall overtime work. A reduction is also to be achieved in the number of workers who put in an enormous number of overtime working hours per year, even though in a number of cases the need for overtime work will not decrease below 180 hours per individual per year.

However, mere formal adoption of measures is not enough for effectively dealing with the problem of overtime work. It is imperative that they be systematically implemented by leading personnel at all levels of management.

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CZECHOSLOVAKIA

QUESTION OF MEASURING ENTERPRISE PROFITABILITY DISCUSSED

Prague HOSPODARSKE NOVINY in Czech 25 Mar 83 p 4

[Article by Eng Vaclav Filip: "Question Marks Around Profit"]

[Text] With reference to Docent Vladimir Kyzlink's article "We Know the Goal, but Are Looking for Criteria" (HOSPODARSKE NOVINY No 11, 1983), I want to state that I agree with him in some questions and disagree in others in regard to the problem of application of the criterion of merits within the conditions of enterprise khozraschet.

I subscribe to the view that the plan is the fundamental criterion in the socialist economy according to which organizations are judged because it most comprehensively expresses the societywide conditions as well as individual conditions of every organization. I believe, however, that plan fulfillment cannot be the only criterion for the organizations' appraisal. In addition to plan fulfillment, organizations must be judged by the dynamism of their efficiency and, so far as individual products are concerned, by a comparison with the parameters of foreign top-quality products. These two additional criteria, apart from plan fulfillment, have not yet been elaborated and concretized in our economic practice to such an extent that they could be systematically, uniformly and independently applied in the evaluation and control of plan fulfillment or in the financial incentives for VHJ [economic production units] and organizations.

I endorse the opinion that an individual approach to assignment of planned tasks to individual organizations involves a number of problems, but I cannot yet regard it as unsuitable simply because no other concrete method usable in practice exists.

As to the problem of prices, I agree with his opinion that a mechanical and unregulated application of prices achieved in foreign trade with the capitalist states to some products only would disrupt domestic price relations. On the other hand, however, I am not of the opinion that adoption of foreign prices would necessarily result in a domestic inflationary increase. To eliminate inflationary price increases, domestic conversion rates can be used although their effect is planar, and they must be supplemented with other financial-economic tools. As to the application of foreign prices in the domestic economy, however, there are a number of variants possible which are usually confounded and cause mutual misunderstandings.

I think that first it is necessary to draw a line between a planned adoption of foreign prices, on the one hand, and their unregulated, indiscriminate adoption, including all capitalist boom fluctuations, on the other. I agree with Docent Kyzlink that it is correct to take over from world prices their most rational feature, that is, particularly their relations in controlling the technical standard of products and revising domestic prices. Here, however, we encounter the practical problem of gaining information on price relations, particularly of those products which are not the subject of imports or exports. In applying world price relations and their correction in domestic prices, it is also necessary to take into consideration the effect of production agreed upon among the CEMA countries.

The application of foreign prices in the domestic economy in their "original" form could have unjustified income impacts and would make much more difficult the planning system whose value would be necessarily reduced to more or less not binding information. Moreover, I think that unregulated foreign prices could not meet the demands laid on price as a category which should be the point of intersection of economic, social, political and social interests.

A consistent application of the principle of reflecting current foreign prices in the domestic economy would necessitate appropriate corrections of financial tools in order to eliminate the unregulated development on the capitalist market which is not simple in practice--or allowing full impact with all consequences.

The foreign price relations applied to domestic prices must be fully reflected in all areas of financial incentives and thus used as the means of rationalization and of more effective development.

In the area of financial incentives, Docent Kyzlink proposes regulating wages payable both by receipts from sales and by return on production assets measured by net profit. As to the application of the indicator of receipts from sales, that is, a volume indicator containing the share of past labor input, it is possible to theoretically subscribe to this view because it is based on the assumption of objectified prices which cannot be controlled by the organizations. Practical experiences, however, raise justified doubt on the pure nature of objectivity of these prices because the manner in which world and foreign prices are ascertained (particularly of those products which are not the subject of foreign trade) obviously cannot be freed from subjective approaches. I think, therefore, that for practical reasons it is more purposeful to choose the net production indicator rather than that of receipts. Since it is reflecting the final effect for the society, the net production indicator is also preferable because it is not a volume indicator since it contains savings in past labor input.

Profitability determined by the proportion of net profit to the production assets could not be, in my opinion, properly used (despite the advantages resulting from its linkage to the actual production of society's resources) because depreciation allowances would make net production too labile for use of such a sensitive tools as wages payable.

The indicator of net production type (such as adjusted value added) has another advantage for wage regulation over the proposed net profit indicator. It eliminates to a certain extent the tendency to manufacture a more advantageous assortment because higher wages are usually compensated by a more demanding material or profit rate. The manner which would counteract the tendency to fulfill a more advantageous assortment by obligatory setting of specific production targets did not prove sufficiently effective in the past.

As to the suggestion that profit should become the basic mandatory indicator for the organization's activity, I am of the opinion that it should not be a mandatory indicator. When financial incentives are increased, the mandatory nature of the indicator is superfluous (unless the system of qualifying indicators is applied) regardless of the fact that the mandatory nature of the absolute indicator leads to the indicator concept of plan fulfillment.

The suggestion for the introduction of obligatory levies on each Koruna invested in fixed assets or frozen in working capital as well as a levy on the number of workers is logical within Docent Kyzlink's concept, when he regards profit as the basic indicator. However, it does not make sense under conditions when the basic indicator is the return on production assets or production factors, because it is the production factors that suffer. Since planning in the socialist society must cover all spheres of social reproduction (exemptions from this principle have been granted so far only for some specific price changes), even these levies would have to be planned.

Under the conditions of profit as the key indicator, these levies should be specified only in the 5-year and not annual plans because in the latter case the effect of these levies would be confined to the deviation of reality from the annual plans. Their effect in the 5-year plans would be broader because the levies would also exert influence by their deviation in the annual plans from the 5-year plan and thus would become the subject of counterplanning at the same time.

In conclusion, I want to say a few words on the problem of the "target-oriented" system of management. I think that the term "target-oriented solution" does not meet the requirement of the dialectical unity of relation between the pertinent problems and the system of planned management. There would have to be different "target-oriented" solutions, in my opinion, for the period of the developed socialist society, for the period with not yet built and completely constructed material production basis respectively, for the period with the overall balance or lack of balance and so on.

Editor's Note: The author of this article worked in the field of financial price and wage planning in the chemical industry. For a long time he held various positions in the State Planning Commission and Czech Planning Commission. He is the department head of the secretariat of the government committee for problems of planned management of the national economy.

10501
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NEED FOR AGRICULTURAL PROFITABLY VIEWED

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[Article by Eng Kveta Burianova, CSc: "Objectivization of the Need for Profit in Agricultural Production"]

[Text] Procurement prices of agricultural products perform a function analogous to that of wholesale prices; in the first place they must cover justified production costs and the requisite profit need. In addition, they fulfill a number of other functions, are a criterion for the effectiveness of the spent expenditures, they encourage or, eventually, discourage adherence to the planned rate of production, fulfill the function of evidence, control, etc.; however, their basic function is that of reimbursement.

The procurement price cannot be used to reimburse either costs, or profit at any level. The need for objectivization of the cost basis of procurement prices, particularly by confrontation with normatives of secondary input cost and labor input is generally recognized, if not always fully applied.

The amount of profit for a specific product is routinely determined most often on the basis of the rate of return on investment in direct proportion to other products. The term very often used is "rapprochement of profitability of products" or "reduction of differences in profitability," etc.; nevertheless the economic category "profitability" is a derived category and its level for achieving the same amount of motivation in producers will vary with different products and under different conditions. Thus, an objectivized return on investment cannot be derived from relations to the profitability of other products, but must be calculated on the basis of objectivized costs and objectivized profit. Computation of objectivized profit on the basis of data averages will yield, after inclusion of non-agricultural activities, information regarding the overall need for profit of agricultural enterprises. Computation according to different natural conditions, together with objectivized costs, will form the basis for objectivization of the instruments for differential profits, particularly differentiated surcharges which, together with the procurement price, should provide for objectivized reimbursement of costs and the need for profit in agricultural production under more unfavorable natural conditions.

The methodological basis for computing the need for objectivized profit in agricultural enterprises must be seen in determining the total profit, or--in

view of the significant share of supplementary instruments for reimbursement in agriculture--the total resources for distribution. The computation should be tied to the five-year plan. This calls for updating the computation for each five-year plan, if for no other reason than because of the changing volume of investments and their structure. Consequently, advancing the need for a profitability identical to that of the preceding five-year plan cannot be considered as objectively justified, if there are systematic increases in costs and a stagnating or even regressing plan of investments.*

Proposed Methodology for Computing the Need for Objectivized Profit--Resources for Distribution in Agricultural Enterprises and Products

Profit, or resources for distribution, must in agriculture--the same as in an industrial enterprise--reimburse:

1. contribution to defrayment of societal needs, i.e., the levied component,
2. own resources of enterprises for financing planned expanded replacements, i.e., allocations to the enterprise's funds from profit.

In addition, profit could include the incentive component which, however, should rather be generated as the result of improved economic results in comparison with the calculated computation which in its maximum extent is based on standardized costs.

Utilization of profit in an agricultural enterprise takes the following specific forms:

--agricultural tax: land and real-estate tax
profit tax

--allocations to funds: capital formation
revolving fund
cultural and social services
special compensations fund
contingency fund

Interest on credit and contribution to social security do constitute elements of net income, but since in bookkeeping they are included under financial costs, they shall not be dealt with further.

Proposed Methodology for Computing the Components of Objectivized Profit

- a) The land and real-estate tax is a criterial economic instrument for drawing on differential profitability under favorable natural conditions, because the cost basis of procurement prices is formed in our country by average--or in some cases favorable--natural conditions, as can be seen from the multiple volume of differential surcharges in comparison with the volume of land tax.

*In 1982 the plan called for a decrease in investments by Kcs 1.2 billion.

The land and real-estate tax is paid by agricultural enterprises to promote interest in utilizing the soil of every hectare of farm land. Its rate under most favorable conditions amounts to Kcs 1,500 per hectare, while it gradually decreases in the direction of less favorable conditions and from the seventh positional zone* it is zero. Thus, the profit included in the procurement price of produce typical for more favorable natural conditions, e.g., corn for seed, sugar beet, vegetable produce, malt barley, etc., must pay a substantially higher land tax than is the case in produce cultivated predominantly under less favorable natural conditions, e.g., rye, flax, autumn potatoes, etc. A comparison of the varying need for profit for payment of land tax exemplified by sugar beet and flax is shown in table 1. If the share of land tax in the profit that must be obtained from plant production amounts to approximately 28 percent, then in the case of seed corn it is 40 percent, in rye 17 percent and in autumn potatoes 10 percent. Under identical natural conditions, specifically in a single agricultural enterprise, the land tax at identical rate per hectare falls more heavily on a unit of product that is of a more extensive character.

Land tax accruing to areas used for production of non-finalized fodders must be covered by the agricultural enterprise from profit or through costs for consumers of these fodders, particularly cattle and sheep.

b) The profit tax is structured on the income principle and it increases progressively according to the attained measure of profitability in an agricultural enterprise. Enterprises showing a loss, or profitability of less than 5 percent, do not pay any profit tax, while agricultural enterprises showing a profitability in excess of 48 percent pay up to 55 percent in profit tax; however, on the average it is lower by one-third than in industry and in calculated averages amounts to only 20 percent of objectivized profit.

In structuring the objectivized profit for individual agricultural products was applied the enterprise method for determining the profit tax in such a manner that the basis for computation of profitability for the purpose of taxing profit was formed by the sum of the remaining objectivized components of profit, i.e., land tax and allocations to the requisite funds. A higher tax rate was applied primarily to products subject to a higher land tax and with high productivity of direct labor input. If in recompilation the average profit tax in plant production amounted in the case of objectivized profit to 10 percent, then in the case of wheat and barley it would exceed 13 percent, while in the case of autumn potatoes it would equal 0.

c) Allocation to the capital formation fund was derived on the basis of preliminary proposals for the plan of investments in the Seventh Five-Year Plan and the share of their financing according to the economic result for the year 1980. In regards to products, with the aid of data from the CSSR Ministry of Agriculture and the State Planning Commission it became possible to directly specify two-thirds of investments; the remaining investments not

*Farm land is classified according to natural conditions into 139 positional units and the latter are combined into 13 positional zones.

directly related to products, such as those for services, transportation, repair shops, computer technology and others, were divided into agricultural and non-agricultural operations and subdivided according to the share of investments directly related to products. Resources for financing investments destined for construction of storage facilities were included into the need for profit in plant production, but not into the need for profit in the corresponding products (potatoes, fruit, vegetables), as storage costs will be reimbursed by a surcharge for storage, sometimes directly included into the price specified for the duration of storage.

The share of financing investments from the economic result amounted in the plan for 1979 to 28 percent, for the 1980 plan to 30 percent; in view of increases in write-offs, the share used for recomputation of objectivized profit was 29.9 percent; however, the average share was differentiated, particularly for fodder grasses, keeping of cattle and sheep lowered to 20 percent with a view to a higher share of investment subsidies, eventually allocations from the fund for soil reclamation. On the other hand, for the remaining sectors the envisioned financing of investments from profit was set at 40 percent, so that the average share in the case of plant production amounted to 30.8 percent and in the case of animal production it was 25.9 percent.

d) Allocations to funds for personal and social consumption, i.e., the special compensations fund and the cultural and social services fund, were derived from a share from expenditure premiums, namely in conformance with the factual level of 6 percent in the case of the special compensations fund and 4.8 percent in the case of the cultural and social services fund, for a total of 10.8 percent, which is in agreement with the plan for 1982. The computation of objectivized profit envisions 12 percent of expenditure premiums with the proviso that the difference will be assigned for eventually supplementing the contingency fund. Expenditure premiums as a basis for computation were projected according to products according to data from the cost-accounting set of JZD [unified agricultural cooperatives] for 1980 and adjusted with a view to the overall volume and increase in the costs of labor planned by the State Planning Commission for the years 1982-85.

e) Allocations to the revolving fund were determined at their approximate real level and oriented toward nonagricultural activities* and toward animal production, and in the latter more toward keeping of cattle and sheep for which the plan provides higher increments in the numbers of animals and in fodder supplies. Allocation to the revolving fund has not been considered in plant production due to the high degree of the achieved finalization of seedings.

Some Unresolved Methodical Problems

Many methodical problems remain unresolved in classification of individual components of profit utilization, as well as in capital requirements and

*In 1981 occurred the highest and unplanned increase in stockpiles of purchased materials which to a considerable degree are connected to subsidiary production and transportation.

costs, between agricultural and non-agricultural activities. The basis for classification is primarily the auxiliary table from the summary accounting reports of agric. acc. 1/04 "Costs and Yields of Activities" where, however, even after a methodological improvement implemented in 1981, 70 percent of profit remain classified as "other," i.e., primarily indemnity for damages, even though they are essentially tied to plant production. That, together with imprecise classification of costs for supporting activities, i.e., mechanization and transportation, distorts the ratio of profit in agricultural and non-agricultural activities to the detriment of agriculture. Within the scope of supporting activities are included internal services for agricultural production as well as billed transportation and services for outsiders, which in their scope exceed subsidiary production. The large volume of transporting agricultural products to the customer and of purchased needs to agricultural enterprises are paid to agricultural enterprises as services for others, because procurement prices are specified as "free to the agricultural enterprise." Profit and return on investment for non-agricultural activity should generally be somewhat higher, as the used prices are usually stipulated for communal or industrial enterprises that are subjected to substantially higher levies in comparison to agriculture.

Another methodological distortion in the case of agricultural production and products is due to the use of data from the "Cost-accounting Set of JZD." These costs include also consumption of their own intermediate product; while this is methodically correct for individual products, eventually for plant and animal production, it does not apply to agricultural activity as a whole, in which costs of own intermediate product are included in part as the sum of costs for fodder plants and partly (dupliciously) in costs of animal products for own fodders, in plant products in the costs for own seeds and manure from stalls. The difference can be seen in the data of table 2.

The "Set of JZD" accounts for a cost for agricultural activity higher by one-fifth than all JZD's. The difference is minimized after elimination of the duplicitly included own intermediate product.

Methodologically unresolved is also the problem of including the need for profit in non-finalized own fodders into the costs or profit of animal production. With a view to a part of cooperative enterprises where these fodders for animal production are supplied at a profit, it would be expedient to include the profit surcharge in own fodders into the costs of animal production even when used for fodder in the same enterprise. This, of course, increases the costs, particularly for cattle and sheep keeping, while, on the other hand, their need for profit does not include the profit for own fodders, so that the objectively needed calculated return on investment is by necessity substantially lower than it would be if profit for own fodders would be added to the profit for the final product. To facilitate orientation, both methods of calculation are shown in table 3 which indicates that when the need for profit for own fodders is included into the profit from animal production there occurs a rapprochement between the requisite return on investment from plant and animal production.

The 5 percent flat-rate for return on investment included into the standard prices for nonfinalized intermediate product will necessarily call, however, for a more precise adjustment which might be handled most expediently by an independent profit surcharge adapted also to varying natural conditions.

Computation of the Objectivized Need for Profit for an Agricultural Enterprise and Key Activities

Computation of individual items of profit was applied to agricultural enterprises that farm land with an essentially adequate classification of overall sources, i.e., profit including allocations, as can be seen from the data in table 4. Computation of the need for resources for distribution for agricultural enterprises which farm land essentially corresponds to the level for the average year 1980 and the difference in comparison to the plan for 1982 involves a reduction in the need for resources for financing of investments. The ratio of allocations to profit ranges from 19 percent in the plan for 1982, through 25 percent in the average year 1980 to 40 percent in the crop-failure year of 1981.

Computation according to individual forms of utilization of resources for distribution was worked out for key orientations of the activities of agricultural enterprises in table 3. The need for resources for distribution computed by the method of gross turnover, wherein this need is added up for all activity orientations regardless of their form of implementation, amounts to Kcs 10.5 billion, in computation for final production only to Kcs 9.1 billion. The difference is constituted by the need for profit for own fodders which is compensated for in costs of animal production.

The return on investment needed for achieving this profit on the basis of costs in the "Set of JZD" of 1980, adjusted for effects of 1982, amounts to 8.9 percent and return on investment for operating assets is 3 percent. The highest is expected to be encountered, in consonance with the factual state, in non-agricultural activity, then in plant production and the lowest--approximately one-half in comparison with plant production--is sufficient in animal production. The return on assets ratio, in view of high available assets, can be considered to be adequate at approximately one-third in comparison to return on costs ratio.

The data show that the demands of some economists for "balancing return on investment"--be it for main areas of activity or for individual products--are unacceptable. It should rather be required that profit, resources and return on investment be matched to objective needs as closely as possible.

Computation of the need for profit according to individual agricultural products is shown in tables 5 and 6.

The computed need for profit and return on investment fluctuates, particularly in relation to the level of land and real-estate tax and the productivity of direct labor input. The amount of land tax for each hectare of farm land decreases from best to average conditions and in worse conditions

it is not levied at all. For that reason its average level is higher for plants cultivated primarily under better conditions, as can be seen through comparing the computation for, e.g., barley which is for the most part cultivated under better natural conditions, or sugar beets and flax in table 1. The level of productivity of direct labor input is manifested in the varying level of operating expenses, so that in less mechanized types of production, such as potatoes, grapes for pressing and sheep the computed need for return on investment is lower, due to higher costs in comparison with products showing an analogous need for profit.

The computed need for profit per hectare under the conditions of the Seventh Five-Year Plan fluctuates in plant production from Kcs 132 for pastures to Kcs 7,339 for hops, amounting on the average to Kcs 677, to include own resources for financing construction of storage facilities (Kcs 693 per hectare of farm land); from that one-third accrues to own fodders and two-thirds to final plant products. The lowest return on costs ratio (3.3 percent) is adequate in the case of autumn potatoes, the highest (16.7 percent) is required even in the lowest need for profit per hectare with a view to extensively low costs in the case of pastures. Increased need for profit justified by financing the construction of storage facilities should not be reflected in the purchase price during harvest, but in the purchase price increased by a surcharge for storage at the time the product is taken from storage for delivery.

In animal production the computed need for profit for final products amounts to Kcs 416 per hectare of farm land and the derived return on investment, with inclusion of the need for profit for own fodders into the costs of animal production, is approximately 5 percent. The computed need for return on costs ratio according to types of products is lowest in sheep keeping (3.9 percent), then poultry (4-5 percent), cattle, milk and highest (over 5 percent) for hogs. In sheep keeping the relatively high need for profit for the relatively higher required acreage of extensive pastures calls for more expenses than in, e.g., the keeping of cattle, and thus, together with high cost of final production, it decreases the required level of return on investment.

An illustrative comparison of the computed need for profit according to key agricultural products with the "Set of JZD" for 1980, to include effects of 1982, is shown in table 7.

Comparison of Computation of Objectivized Profit of Agricultural Enterprises With the Methodology for Determination of Profit in Wholesale Prices

The specific character of agricultural production led in the past to specification of a varying subjugation of industry and agriculture to levies in the interest of the policy of "inexpensive food." In addition to lower levies on the costs for direct labor input (in JZD remuneration for work is not subject to employment tax, the state sector in agriculture does not pay the so-called revenue tariff, a 20 percent levy on enterprises for wages as a contribution to social security), agricultural enterprises receive over Kcs 2 billion in investment allocations and preferential credit; they are allowed

to make higher allocations to consumption funds--the cultural and social services fund and the special compensations fund. Special compensations in JZD have been regulated since 1982 only in their relation to gross output--not profit, whereby the category of "adjusted outputs" has not been applied to agriculture as yet, so that insufficient pressure is applied to lowering of costs.

The structure of items in computation of the need for profit shows no difference in the methodology for wholesale and procurement prices, differences being encountered only in their specific level, as can be seen from table 8.

The need for financial resources from profit of agricultural enterprises for accumulation amounts in industrial methodology to 38.7 percent and in agricultural methodology to only 26.2 percent of investment needs. There is also a great difference in financing increments in supplies, as the financial plan for agriculture takes into consideration disposable own resources, particularly residues from the contingency fund. Allocation to the fund of cultural and social services amounts in the industry to 2.4 percent and in agriculture to 4.8 percent of wages, which is due to looser application of rules in agriculture and, in part, also due to its function of supplementing low old-age pensions of JZD members dating to the beginnings of collectivization. Allocations to the special compensations fund in industrial methodology are generated only in the course of plan implementation; for that reason they are not taken into consideration in the plan, while in agriculture they amount to approximately 6 percent of wages.

The greatest differences (approximately 84 percent difference) in the need for profit are mainly constituted by the levied component* which in industrial methodology amounts to 55 percent and in agriculture to approximately 23 percent of profit. For that reason the computed need for profit in agricultural methodology does not amount to even one-half of the computation in industrial methodology and, similarly, return on investment is lower by almost one-half. The return on assets ratio in industrial methodology of 6.5 percent can with a view to longer turnover in the structure of fixed assets of predominant constructions be considered as relatively high and its eventual realization would mean an increase in the need for meeting costs of agriculture by approximately 8 percent. Increasing the levy burden in agriculture, as long as it fails to deal with income differentiation, cannot be considered viable, because of the resultant pressure on retail prices. If such a central decision were to be considered, it might be economically advisable to preferentially combine levies tied to wages and included in costs** which would increase the need for meeting replacement costs of agriculture by approximately 4 percent. Subject to central decision is also control of allocations to consumption funds. It must be envisioned, however, that modification of economic rules in agriculture oriented toward increased pressure on making production more efficient will materialize only after assessment of experimental verification of the application of the Set of Measures in agriculture, i.e., essentially in the Eighth Five-Year Plan.

*Without levies for social security, which are included in costs.

**Employment tax in JZD and levy for social security in the state sector of agriculture.

Conclusions Regarding the Proposed Methodology for Computation of the Need for Profit in Agricultural Enterprises

1. Computation of the need for profit in agricultural enterprises must in view of the lower share of price compensation for replacement costs in agriculture be related to overall resources for distribution in agricultural enterprises.
2. Objectivization of the need for overall resources for distribution in agricultural enterprises farming land must be based in all aspects of utilization of resources on a tie-in with the five-year plan.
3. Central decisionmaking regarding the need for redistribution of the national income must be based on a relationship to the volume of profit, not to the volume of return on investment which as a derived indicator and, as such, considerably variable not only in the volume of resources, but also costs and, eventually, production assets.
4. Distribution of the computed overall need for resources for distribution to be met by the purchase price, pricing instruments and economic tools other than prices must be dealt with in connection with the cost basis of procurement prices and the share of these prices in the overall structure of compensation for replacement costs in agriculture, which is not a subject of this article.
5. Methodically unresolved problems are concentrated in distribution of the computed need for resources for agricultural and non-agricultural activity.

In the framework of agricultural production I deem it advisable that the requisite profit (overall resources) for own intermediate product be projected into the costs of animal production, which will become manifested by a reduced need for return on investment from this production, as the profit for final animal products will be related to costs increased by the need for profit for own fodders, which by necessity must be differentiated as to products and territorially.

6. Orientatively computed need for return on investment for agricultural enterprises as a whole amounts to approximately 9 percent, for agricultural activity to 8-9 percent, approximately one-half will be sufficient in animal production as compared to plant production and, according to products, it is relatively balanced--ranging roughly from 4 to 6 percent of costs; the differences are substantially higher in plant production, where the need for resources for distribution per hectare ranges from Kcs 100 to Kcs 7,300 and the measure of the return on costs ratio from 3 to 17 percent.

7. From the computation of the need for profit or resources for distribution in agricultural enterprises according to the methodology for determination of wholesale prices was derived a roughly twofold need for resources for distribution which, if implemented, would call for an increase in the overall compensation for replacement costs in agriculture on the order of approximately 8 percent. Approximately 84 percent of the difference is due to preferential levies on agriculture and, moreover, costs in agriculture are not subject to

a 20 percent levy on wages. Quite to the contrary, the currently valid economic conditions enable agriculture to make allocations to consumption funds more than fourfold higher.

Table 1. Illustrative Computation of the Need for Profit for Meeting Land Tax in the Case of Sugar Beet and Flax

(1) stanovitelní pozemek	(2) sazba pozemkové daně (Kčs na ha z. p.)	rozdělení výměry (%)			
		(4) cukrovka		(5) len	
		CSR	SSR	CSR	SSR
1	800—1500	32,1	7,6	—	—
2	600—750	25,4	26,6	—	—
3	410—550	24,0	8,9	—	—
4	250—350	12,3	22,1	1,3	0,2
5	100—150	4,3	1,7	4,3	—
6	0—50	1,9	6,5	9,4	0,8
7—13	0	0,0	26,6	85,0	99,0
celkem (6)		100,0	100,0	100,0	100,0
průměr daně (7) z pozemků (Kčs/ha)	232	587		18	

NOTE: Positional zones are a combination of 139 natural positional units differentiated according to natural conditions, which are best in zone 1 and worst in zone 13.

Key:

1. Positional zones	4. Sugar beet
2. Land tax rate (Kcs per hectare of farm land)	5. Flax
3. Acreage distribution	6. Total
	7. Average land tax (Kcs per hectare)

Table 2.

A údaje za semidenníkou činnost 1980	B všechna JZD	C „Soubor JZD“	D index (všechna JZD = 100)
1 náklady (Kčs/ha z. p.): 2 — návazně na výsledovky 3 — vět. duplicitně zahrnutého vlastního meziproduktu	12 664*	12 792	101,—
4 zisk (Kčs/a z. p.)	1 182	1 117	99,6
5 rentabilita (%)			
6 — k nákladům z výsledovk	9,3	9,2	98,9
7 — k nákladům vět. duplicity	—	7,7	—

see table 3.

Key:

A. Data for agricultural activity 1980	3. To include duplicitously included own intermediate product
B. All JZD	4. Profit (Kcs per are of farm land)
C. "Set of JZD"	5. Return on investment
D. Index (all JZD = 100)	6. In relation to costs from result indicators
1. Costs (Kcs per hectare of farm land)	7. In relation to costs to include duplicity
2. Tied to result indicators	

Table 3. Computation of the Need for Resources for Distribution According to Key Activities of Agricultural Enterprises

in millions of Kcs

	potřebný podnik celkem			z toho činnost				
	A			B		v tom:		
	C	D	E	F	G	H	I	J
1.								
1.1.	dodatek fondů:							
1.2.	— výstavby vč. skladů	3 901	6 441	1 611	3 450	3 030	540	1 157
1.3.	— obratovému	300	500	312	450	450	—	—
1.4.	— spotřebě a rezerv	2 874	2 902	1 185	1 450	1 717	220	611
1.5.	dodatek srovnávání:							
1.6.	— z pozemků	1 000	1 568	—	1 000	1 568	560	1 000
1.7.	— ze zisku	700	852	493	286	429	163	270
1.8.	celkem potřeba zdrojů	9 699	10 542	3 331	5 781	7 912	1 451	3 035
1.9.	k rodičovní	300 542	335 900	70 530	230 003	265 261	35 358	67 437
1.10.	vyrobení fondů	100 520	113 454	30 293	69 136	93 061	12 923	27 631
1.11.	májového	101 560	—	81 587	—	—	—	52 505
1.12.	vč. zisku krmiv vlastních	—	—	—	—	—	—	53 936
1.13.	rentabilita (%) ex zdrojů	—	—	—	—	—	—	—
1.14.	celkově:							
1.15.	a) k výrobním fondům	3,0	3,1	4,7	2,5	2,7	4,1	4,5
1.16.	b) k nákladům	8,0	9,3	16,3	7,3	7,7	11,3	11,1
1.17.	— na finální výrobky	—	—	—	—	—	—	—
1.18.	— zisk krmiv vlastních v nákladech	8,0	—	—	7,1	—	—	—

a Volume acc. to the State Planning Commission divided acc. to survey by the Research Institute for Economy in Agriculture and Food Industry in Prague in a set of 120 JZD for the year 1976.

b Costs for agricultural activity are determined by the difference between overall costs acc. to the State Planning Commission at an average for the plan 1982-85 and costs for agricultural activity computed for "Cost-Accounting Set of JZD."

Key:

- A. Total for agricultural enterprise
- B. From that accruing to activity
- C. Final products
- D. Gross turnover
- E. Non-agricultural activity
- F. Agricultural, of which
- G. Final products
- H. Gross turnover
- I. Plant production
- J. Own fodders
- K. Final products
- L. Animal production-- final products
- 1. Allocations to funds
- 2. Capital formation, to include storage facilities
- 3. Revolving
- 4. Consumption and contingency
- 5. Land tr.
- 6. From acreage
- 7. From profit
- 8. Total need for resources for distribution
- 9. Operating assets
- 10. Costs
- 11. To include profit on own fodders
- 12. Return on investment from total resources
- 13. To operating assets
- 14. To costs
- 15. For final products
- 16. Profit for own fodder in costs.

Table 4.

in millions of Kcs

A zemědělské podniky hospodařící na půdě	B počet potřeby zdrojů k rozdělení	C zdroje celkem — skutečnost		D plán 1942
		1939	1941	
1. výroba zdrojů:				
2. — zisk		7 734	5 016	8 100
3. — dotace zisku		2 729	3 457	1 900
4. zdroje k rozdělení celkem	10 543	10 463	8 473	10 000
5. z toho formy užití:				
6. pozemková daň	1 548	1 347	1 367	1 400
7. daň ze zisku	852	1 311	990	900
8. dotace fondu výstavby	4 441	4 840	3 212	3 900
9. — obratovému	800	527	551	860
10. — spotřeby a rezerv	2 902	3 238	2 924	2 940

Key:

- A. Agricultural enterprises farming land
- B. Computation of the need for resources for distribution
- C. Total resources--actual state
- D. Plan
- 1. Generation of resources
- 2. Profit
- 3. Allocations from profit
- 4. Total resources for distribution
- 5. From that the forms of use
- 6. Land tax
- 7. Profit tax
- 8. Allocation to capital formation
- 9. Revolving fund
- 10. Consumption and contingency funds

Table 5. Computation of Annual Need for Resources for Distribution in Plant Production in the Course of the Seventh 5-Year Plan in Kč per hectare

A výrobek	T-B pozemkov druh	C dostatek fondům		F zisk druh	G zisk druh	Dopravní sítě		J. Soubor JZD nařízení 1980 v Z. vilem 1982	K zisk druh
		D výstav. by bus skladů	E spotřeba v rezervy			H celkov.	I zisk v rezervy		
1. pišnice	315	280	93	108	796	60	5 824	13,7	
2. ječmen	981	280	93	95	728	—	5 496	13,2	
3. řepa	54	280	90	30	454	—	5 130	8,8	
4. rukouře na zrno	565	280	111	167	1 111	—	8 337	13,3	
5. ovce a ostatní obiloviny	74	280	92	23	478	340	5 204	8,9	
6. luštěniny jedlé	356	280	85	86	815	205	7 062	11,5	
7. krmivo	581	280	85	62	716	716	7 062	10,1	
8. řepka	155	280	76	33	552	—	8 508	8,5	
9. cukrovka	376	451	382	233	1 649	—	11 878	14,1	
10. brambory rané	381	213	359	5	1 158	128	22 158	5,8	
11. brambory pozdní	62	197	447	—	708	264	20 902	3,3	
12. lec	11	280	232	13	144	—	7 965	6,8	
13. selenina	549	907	1 086	185	977	738	31 333	9,9	
14. ovoce	392	859	540	230	2 716	—	13 972	15,1	
15. chmel	604	3 877	2 175	681	7 339	—	58 824	13,5	
16. vinné hrozny	439	2 620	1 198	611	4 868	—	33 711	14,4	
17. plodiny na orné půdě	249	198	488	53	566	—	5 271	10,7	
18. lounky	77	100	48	23	234	377	2 438	10,4	
19. pastviny	23	61	15	23	132	388	790	16,7	
20. selenina rychlá	—	117 308	813 000	20 377	350 645	130	4 180 000	8,6	
21. tabák	391	680	1 920	905	2 196	—	36 478	8,8	
22. olejová rostlina a výroba	238	245	129	65	677	223	8 236	10,9	
23. z toho: finální výrobky	155	162	94	43	454	—	8 007	5,3	
24. krmiva vlnatá	83	83	35	23	223	—	3 923	5,8	
25. výroba skladů:									
26. brambory rané	381	560	539	46	1 556	—	7,0		
27. pozdní	49	716	447	17	1 922	—	5,8		
28. selenina	549	2 300	1 096	707	4 652	—	14,8		
29. ovoce	392	1 684	540	969	3 585	—	26,7		
30. celková rostlinná výroba	238	361	129	65	893	—	11,1		

Key:

- A. Product
- B. Land tax
- C. Allocations to funds
- D. Capital formation without storage facilities
- E. Consumption and continuity
- F. Profit tax
- G. Need for profit
- H. Total
- I. From that, fodders
- J. "Set of JZD" cost for 1980 to include effects of 1982
- K. Return on investment
- 1. Wheat
- 2. Barley
- 3. Rye
- 4. Seed corn
- 5. Oats and other cereals
- 6. Edible legumes
- 7. Fodder legumes
- 8. Rape-seed
- 9. Sugar beet
- 10. Early potatoes
- 11. Late potatoes
- 12. Flax
- 13. Vegetables
- 14. Fruit
- 15. Hops
- 16. Wine grapes
- 17. Podder grasses on arable land
- 18. Meadows
- 19. Pastures
- 20. Intensively grown vegetables
- 21. Tobacco
- 22. Total plant production
- 23. From that: final products
- 24. Own fodders
- 25. To include storage facilities
- 26. Spring potatoes
- 27. Autumn potatoes
- 28. Vegetables
- 29. Fruit
- 30. Total plant production

Table 6. Computation of Annual Need for Resources for Distribution in Animal Production and Per Enterprise in the Seventh 5-Year Plan
in Kcs per rated unit

A výrobek	B objem výroby	C společná výroba	D početnost jednotek	E délka hodiny obrátkování	faktory stavu jednotek				faktory stavu jednotek				restabilita (%) zabití ve stávce v bruslav výrobních objektech		
					F výrobek bez obřádku	G výrobek s obřádkem	H specifický	I délka se stavou	J početnost jednotek	K výrobek bez obřádku	L výrobek s obřádkem	M početnost jednotek	N výrobek bez obřádku	O výrobek s obřádkem	
Q počet jednotek	R normativ	S normativ	T normativ	U normativ											
mlátičky (1)	1 200 000 t/m. I	mlátičky výrobní pečlivé	70	37	34	—	318	175	3 631	3 150	3 639	3 634	3 634	3 634	
kalibratorky (2)	600 000 t	kalibratorky výrobní pečlivé	487	387	364	—	658	65	1 603	163	21 350	17 410	22 553	18 413	
čerstvé koleny (3)	11 000 t	čerstvé koleny výrobní pečlivé	1 734	910	1 182	122	3 814	16	1 343	16	75 000	66 000	89 345	89 345	
průmyslové koleny (4)	100 000 t	průmyslové koleny výrobní pečlivé	600	60	100	4	781	60	623	60	16 030	16 030	16 030	16 030	
výrobek žáru (5)	1 100 000 t/m. II	—	25	3	3	—	33	14	687	687	893	893	893	893	
benzínové (6)	100 000 t	—	450	94	158	—	608	90	16 000	16 000	ment	ment	ment	ment	
kontrolní drahové (7)	40 000 t	—	450	115	971	—	636	6	16 160	16 160	ment	ment	ment	ment	
skladiště (8)	6 503 000 ha 1 t/m. II	—	903	73	135	1	616	416	6 071	7 071	6 097	7 100	6 097	7 100	
zemědělské výrobky (9)	3 293 000 ha 1 t/m. II	zemědělské výrobní pečlivé	63	63	—	31	92	92	3 925	3 925	3 925	3 925	3 925	3 925	
obdoby zemědělské (10)	3 210 000 ha 6 503 000 ha	zemědělské výrobní pečlivé	1 533	1 623	—	94	63	454	454	8 607	8 607	8 607	8 607	8 607	8 607
zemědělské výrobky (11)	6 103 000 ha	zemědělské výrobní pečlivé	153	267	75	309	44	866	866	12 546	12 546	12 546	12 546	12 546	12 546
zemědělské výrobky (12)	6 303 000 ha	zemědělské výrobní pečlivé	—	217	48	162	65	1 019	1 019	3 136	3 136	3 136	3 136	3 136	3 136
zemědělské výrobky (13)	6 803 000 ha	zemědělské výrobní pečlivé	153	680	193	611	169	1 398	1 398	15 439	15 439	15 439	15 439	15 439	15 439
zemědělské výrobky (14)	6 503 000 ha	zemědělské výrobní pečlivé	—	603	193	611	169	1 681	1 681	17 416	17 416	17 416	17 416	17 416	17 416

a Special compensations fund, cultural and social services and contingency
b SZP--joint agricultural enterprise

Key:

- A. Product
- B. Procurement volume
- C. Type of use
- D. Land tax
- E. Allocations to funds
- F. Capital formation without storage facilities
- G. Revolving
- H. Consumption
- I. Profit tax
- J. Total need for profit

[Key continued on next page]

K.	Per rated unit	(1)	Milk (in thousands of liters)
L.	Per hectare of farm land	(2)	Cattle for slaughter
M.	Costs per rated unit in 1980 to include effects of 1982	(3)	Total sheep
N.	"Set of JZD"	(4)	Total hogs
O.	Standard	(5)	Eggs (in thousands of pcs)
P.	Including profit on own fodders	(6)	Broilers
Q.	"Set of JZD"	(7)	Other poultry
R.	Standard	(8)	Animal production
S.	Return on investment re costs including profit on own fodders	(9)	Plant production
T.	Set of JZD	(10)	Storage facilities
U.	Standard	(11)	Agricultural production + Total
1.	Final	(12)	Non-agricultural activity
2.	Own fodders	(13)	Agricultural enterprise
3.	Total	(14)	Total
4.	Gross turnover		

Table 7. Illustrative Comparison of the Computed Need for Resources for Distribution in Agricultural Products with data from "Cost-Accounting Set of JZD CSSR" in Kcs per ton

A hlavní výrobky	B proposed potřeby mínimální ^a	C sítak „Souborné JZD sledujících náklady“		
		proposed ^b	skutečnost	
			1980 ^c	1981 ^c
1 plenice	167	365	504	316
2 řepa	136	498	333	209
3 ječmen	188	575	483	392
4 oves	169	248	—	169
5 kukurice na zrno	166	606	364	308
6 brambory rané	114	97	238	303
7 brambory konzumní	47	680	—267	—144
8 řepka	260	1 534	1 772	1 329
9 len	171	728	514	—159
10 cukrovka	35	122	14	—18
11 chmel	6 648	18 010	7 250	13 682
12 moštové hrozny	730	2 954	—748	—3 867
13 mléko (za 1 000 l)	210	120	120	170
14 skot výkrm	900	1 950	1 170	110
15 pranata výkrm	780	840	1 290	680
16 vejce -- (za 1 000 ks)	33	140	31	45

^a The standardly computed profit is a recomputation per unit of product through hectare yields on which are based standards for costs worked out by the Institute for Improving the Efficiency of Management and Labor in Agriculture.

^b From average prices realized in 1982 according to the Federal Price Bureau are subtracted costs acc. to the "Cost-Accounting Set of JZD" for 1980, to include effects of 1982, and profit per hectare divided by standard yield per hectare or utilitarian value according to ^a above. Realized price, including economic instruments, reduced by costs and valuation of intermediate product in own costs.

[Key on following page]

Key:

A. Main products	6. Spring potatoes
B. Computation of need for profit	7. Potatoes for consumption
C. Profit acc. to "Cost-Accounting Set of JZD"	8. Rape-seed
D. Computation	9. Flax
E. Actual state	10. Sugar beet
1. Wheat	11. Hops
2. Rye	12. Grapes for pressing
3. Barley	13. Milk (per 1,000 liters)
4. Oats	14. Cattle feeding
5. Seed corn	15. Hog feeding
	16. Eggs (per 1,000 pcs)

Table 8. Computation of the Need for Resources for Distribution for Agricultural Enterprises Farming Land in the Seventh 5-Year Plan in billions of Kcs

	A proposit v metodice		D rozdíl (2) — (1)
	(1) velkoobchodníc cen primární	(2) platiné v zemědělství	
1 roční plán investic	14,7	14,7	—
2 splátky investičních úvěrů	2,1	2,1	—
3 celkem na financování investic	16,8	16,8	—
4 plán odpisů	8,2	8,2	—
5 potřeba na akumulaci	8,6	8,6	—
6 investiční dotace		2,—	-2,—
7 přebytek zdrojů z minulých let		0,8	-0,8
8 investiční úvěry	2,1	1,4	+0,7
9 potřeba akumulací ze zisku	6,5	4,4	-2,1
10 plán přírůstku zásob	2,7	0,8	-1,9
11 přebytky zdrojů z minulých let		(0,8)	
12 přidání ze zisku fondům			
— kulturních a sociálních potřeb	0,7	1,3	+0,6
— odměn	—	1,6	+1,6
13 celkem ze zisku přidání fondům	9,9	8,1	-1,8
14 odvody	12,1	2,4	-9,7
15 potřeba zdrojů k rozdělení	22,—	10,5	-11,5
16 rentabilita [%]			
— k výrobním fondům	6,5	3,1	-3,4
— k nákladům SPK ^b	19,4	9,3	-9,3
— k nákladům 1981 včetně vlivu 1982 ^c	18,8	9,0	-9,8
22 očekávané fondy průměr plánu 1981—85 založeny podle SČS průměr plánu 1982—85		242,9 mid. Kčs 93,— mid. Kčs	
celkem výrobci fondy		335,9 mid. Kčs	
23 b průměr plánu 1982—85		113,5 mid. Kčs	
24 c očekávané 1981 včetně vlivu 1982		117,3 mid. Kčs	

Key:

A. Computation using the methodology of	1. Annual plan of investments
B. Wholesale Industry Prices	2. Investment credit payments
C. Applicable to agriculture	3. Total for financing of investments
D. Difference	4. Plan of write-offs

[Key continued on following page]

5. Need for accumulation	16. Levies
6. Investment allocations	17. Need for resources for distribution
7. Excess of resources from previous years	18. Return on investment
8. Investment credits	19. Re operating assets
9. Need for accumulation from profit	20. Re costs acc. to the State Planning Commission
10. Plan for stockpile increment	21. Re costs in 1981 to include effects of 1982
11. Excess of resources from previous years	22. Fixed assets, plan average 1981-85, stockpiles acc. to Czechoslovak State Bank, plan average 1982-85, total of operating assets
12. Allocations to funds from profit	23. Average for plan 1982-85
13. Cultural and social services	24. Actual state for 1981 including effects of 1982
14. Special compensations	
15. Total allocations to funds from profit	

8204
CSO: 2400/220

CZECHOSLOVAKIA

THEFT OF SHORTAGE CONSTRUCTION MATERIALS CONDEMNED

Prague ZEMEDELSKE NOVINY in Czech 15 Mar 83 p 2

[Article in the column "Questions of Protecting Socialist Property":
"Building Sites Are Not Self-Service Stores"]

[Text] Recently, Kcs 148 to 158 billion annually has been invested in our national economy. Of these funds the majority have been used to develop the fuel and energy supply basis, to modernize industry, for soil fertilization and to build residential housing, schools and commercial, health, cultural and other establishments. Investors, builders and other suppliers have used an overwhelming part of these funds properly, economically and according to the interests of society. There is no doubt, though, that there are still considerable hidden resources for development. We can tap these resources by improved organization of work, energetic application of technological advances, better management and, of course, elimination of unnecessary losses.

Part of the losses may be attributed to criminal activity in the building industry, with approximately 2,500 persons tried annually for the theft of socialist property. Most frequent is theft of building materials and equipment. A single such theft causes average damage of about Kcs 14,000. Openly stored material is frequently the target of such theft. At one such storage site thieves stole Kcs 420,000 worth of eight-meter gas pipes. From the main square in Liberec thieves drove off with Kcs 80,000 of roofing material.

Valuable materials are usually stored in various storage areas at building sites. But even there things are not entirely safe. From an unguarded storage room at one housing project a thief pulled out a loose window bar and stole infra-red radiators, bathtub fixtures and other accessories worth Kcs 30,000. At the Modrany-Komorany housing development in Prague, supplies and equipment worth between Kcs 600,000 and 700,000 annually are reported missing. Actual losses, however, are most likely considerably higher.

Thieves benefit from the fact that building sites are practically open to the public. Sometimes thieves succeed in breaking into parked trucks, crane cabins and other machines or half-completed buildings. During off hours many smaller building projects are not guarded at all and offenders may drive off with entire truckloads of materials. At times, workers responsible for building enterprises point out that to maintain a permanent guard service

would require greater expense than replacement of the stolen goods. Apparently, these calculations are based on announced losses and do not take into consideration that not only have the materials disappeared but their cost has already been charged to the investors.

At large construction sites participating construction enterprises may agree to set up an effective joint guard service. If, for example, an armed guard with a trained dog would at irregular intervals drive through the building site in a four-wheel drive vehicle, thieves would not dare to enter.

Construction enterprise employees are responsible for some thefts of construction materials, spare parts and equipment. They use stolen material for the construction of their own family houses, weekend cottages and garages or sell it to other interested parties. In Opava, three employees of one construction enterprise stole more than a ton of sheet copper worth more than Kcs 50,000 from a warehouse and sold it. In Orava two construction workers stole several hundred pieces of central heating radiators and a large number of tiles.

Court records note cases in which even managers robbed their own organizations. One construction manager from Brno had installed in his family home a water heater equipped with a pump, which was meant for a building under construction. Then he charged another firm for the water heater. The deputy director of one Bratislava enterprise illegally used transportation and construction machinery in the construction of his own recreation cottage. In addition, he made the enterprise label as discarded or used wood and other materials and sell them to him at a discount.

These and other cases are evidence that incomplete and uncontrolled inventories of materials and machinery are tolerated at some building sites. In many places norms for building material consumption are intentionally set higher to cover losses due to theft.

The physical dispersion of building sites also enables some other types of criminal activity. Several pay fraud schemes were uncovered precisely at building sites. Construction managers created fictitious workers, attributed non-existent work achievements to them and then simple pocketed the wages. In this manner the supervisor of a group of construction workers in Ostrava cheated his enterprise of about Kcs 60,000. Not long ago there was also a case in Gottwaldov in which the supervisor of a locksmith assembly plant pocketed about Kcs 100,000 for "dead souls."

A three-member group of employees of a construction enterprise illegally charged their customers Kcs 750,000 extra for the installation and renovation of lightning rods. Thus during a single year they gained from their employer Kcs 68,000 in additional wages to which they were not entitled by the work they actually performed.

From the public prosecutors' records it is clear that in the area of construction protection of property in the socialist domain is still not on a

satisfactory level. Construction projects become more expensive and thus cause losses to the investors, whether they be industrial or agricultural enterprises.

Managers and control workers should monitor more carefully the flow of material at construction sites to uncover weakness in the protection of these assets and undertake energetic and uncompromising measures in safeguarding against dishonest people. Construction administrators should examine carefully bills for material while performing final inspections in newly constructed private homes, cottages, garages and other projects. For if all construction workers know that records and bills are consistently inspected, the demand for stolen construction materials will have to decrease.

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GERMAN DEMOCRATIC REPUBLIC

INDEBTEDNESS TO WEST SEEN BENEFITING INNER-GERMAN TRADE

West Berlin DIW-WOCHEMBERICHT in German Vol 50 No 10, 10 Mar 83 pp 132-139

[Analysis by Horst Lambrecht, German Institute for Economic Research (DIW), West Berlin: "GDR Indebtedness to West Benefits Inner-German Trade"]

[Text] Inner-German trade in 1982 was characterized by an unexpectedly favorable development. Imports and exports achieved two-digit rates of growth. The GDR has achieved a positive trade balance for 3 years in a row. Price increases occurred in a small measure only in imports from the FRG, accounting for even an adjusted considerable growth rate (plus 11 percent) in trade. Actual growth was the highest in a decade.

A major cause for the positive development in the past year is the fact that the GDR was forced to drastically cut back its other imports from the West (OECD countries minus FRG) because of its heavy debt position. Inasmuch as its indebtedness to the FRG was more favorable, the GDR imported urgently needed items from the FRG. The expansion of inner-German trade in the past year happened against a background of a regional displacement of trade flows. The GDR's 1983 trade policy will also be influenced by debt problems. It is therefore to be expected that inner-German trade will benefit from this circumstance during the current year also.

Positive Results in 1982

The total volume of inner-German trade, i.e., the total of merchandise deliveries by both sides, had a nominal increase of 12 percent in 1982; imports by the FRG from the GDR increased by 10 percent, its exports by 14 percent¹. During the year there was a significant change of trend: since the middle of the year there was an acceleration of the expansion of exports, with a continuing decrease in imports.

At the end of the year the GDR's trade balance turned out to be in the black for the third time running. According to the Federal Statistics Agency, it amounted to about DM 250 million². According to the figures used by the Federal Government, which calculates payments according to the Berlin Accords, there was even a DM 500 million trade surplus in favor of the GDR³. This surplus almost equalled the traditionally high GDR deficit in services, thus resulting in hardly any change in the overall status of obligations between the GDR and the FRG in inner-German trade. This so-called cumulative passive balance amounted, at the end of 1982, to DM 3.7 billion, as it had the year before⁴. At the end of 1981 the cumulative passive balance had still amounted to 60 percent of the GDR's purchases during that year; that ratio dropped to 55 percent as of 31 December 1982. The tendency of a decreasing relative amount of obligations toward the FRG, which has been noticeable for some years, has therefore continued during the past year.

The Swing used by the GDR during 1982 was significantly below the previous year's level. However, this is not caused by the new Swing regulation agreed upon during the middle of last year. While it provides for a step-by-step reduction to [DM] 600 million by 1985⁵, the credit limit of DM 850 million was still in force until the end of 1982. The actual use of Swing varied during the last few years; apart from this, its significance has diminished in the context of inner-German capital exchanges. While for example in 1975 and 1976 the Swing participated at a 30 percent level in financing the GDR's cumulative passive balance, this participation dropped thereafter continuously down to 16 percent in 1982⁶. The GDR has financed more than 80 percent of current obligations from commercial sources.

In 1982, price increases occurred only in exports (plus 2 percent); thus the nominal increase in total volume corresponded with a real increases in trade⁷. As to imports from the GDR, prices overall remained constant: slight price increases for capital goods and consumer goods industries were compensated for by small price reductions in raw materials and manufactured goods. The frequently heard opinion that the GDR has attained its high sales volume in 1982 through price reductions is therefore not valid. In real terms, the FRG's deliveries increased slightly more than its imports--mainly because of an increased accommodation of the GDR economy's import needs during the second half of the year; during the last 2 months of last year especially for the improvement in the availability of consumer goods.

There has been a slight improvement in the terms of trade for the FRG in 1982. In looking at the longer-term picture however, there was a considerable improvement in favor of the GDR, especially since 1979. While in the deliveries by the FRG prices increased overall by 84 percent between 1970 and 1982, they increased for imports from the GDR during the same period by 156 percent. The increase in export and import volume is therefore primarily a function of price increases. Price changes were particularly significant during the years 1973/74 and 1979/80. The principal influence in this were the developments in the petroleum sector. The fairly significant

share of petroleum products in West German imports made it easier for the GDR to improve its trade balance vis-a-vis the FRG. The tendency change in the trade balance with the FRG is based solely on that improvement of the terms of trade. If one were to exclude the delivery of petroleum to the GDR and the import of petroleum products from the GDR from the flow of trade in both directions, there would still remain a delivery gap to the disadvantage of the GDR.

In comparing the development of inner-German trade with the balance of the GDR's trade with the West, one observes a parallel development in the GDR's 1982 export area. However, it was quite different for the GDR's imports: according to data from its partner countries⁸ it appears that the GDR has drastically reduced its imports (by one-third) from the OECD countries (apart from the FRG). In overall trade of the GDR in 1982 there occurred therefore a significant switch toward the FRG. According to partner country figures, the share of inner German trade in the GDR's overall imports from the West has grown from 50 percent in 1981 to 64 percent last year.

The great indebtedness to other Western countries which steadily increased until 1981⁹, and the abrupt change by Western banks in their credit policy forced the GDR to consolidate its debts to the OECD countries. A significant measure to that effect were severe import restrictions. However, the GDR had a much lower debt status with respect to the FRG and a much more favorable ratio between debt and exports. Here it had started consolidating as early as 1980; the level and change in the indebtedness have evidently motivated the West Germany banks to be less restrictive than other Western banks. The GDR's remarkable sales successes therefore provided it with latitude for additional purchases. In this way it was able to procure the urgently needed goods in the FRG and therefore to keep the negative results of a restrictive import policy toward the West as a whole at justifiable levels. There had of course been previous shifts in the GDR's trade with the West, i.e., with the FRG on the one hand and with the other OECD countries on the other; but they had never before been dictated by as acute an emergency as in 1982. It must be noted that the FRG has been, especially in the last year, a reliable economic partner. In addition it must be emphasized that the FRG plays an important part not only as a trade partner but also from the standpoint of foreign currency management. Out of its DM revenues outside the Accounting Unit area¹⁰ (e.g., transit fees, investments in Berlin traffic, Intershop) the GDR obtained sufficient amounts of foreign currencies that it could almost pay the interest on its foreign debt out of it.

Continuing Unsatisfactory Mix of Merchandise

An analysis of deliveries by the FRG shows that the raw materials and manufactured goods sector (which had in the past been already disproportionately high) saw another disproportionate expansion in 1982 also. For iron and steel, non-ferrous metals and ~~chemical~~ products, very high growth rates occurred in inner-German trade. Three-fourths of all excess deliveries to the GDR came from the raw materials and manufactured goods

industry sector. In mining products--especially bituminous coal--there was a drop in sales, quantitatively as well as in total value compared with last year. This is no doubt a reflection of the GDR's big efforts to conserve energy and raw materials.

In 1982 there were unexpectedly large deliveries of agricultural and food products, even though they contributed much less to the increased export volume to the GDR because of their smaller weight. Most significant in this area were the increased purchases of protein animal feeds (1981: 0.31 million tons; 1982: 0.55 million tons); also the grain purchases, made for the first time by the GDR (0.23 million tons) which was delivered mainly in May and June, but partly also toward the end of the year.

There are two significant aspects of the deliveries of protein animal feeds and grain: for one thing it is a declared objective of the GDR leadership to restrict feed product imports during the current Five Year Plan (the imported grain is also destined for upgrading animal husbandry); but in fact the GDR increased the overall import volume of feed products in 1982 over 1981, within inner-German trade as well as outside of it; the desired target was therefore not attained. On the other hand it purchased grain from the FRG for the first time, even though, due to the special status of inner-German trade here (in contrast to other EC countries) there are no export licenses for agricultural exports¹¹ and the GDR's purchases from the FRG are very expensive. What was obviously the decisive factor here was the much greater indebtedness of the GDR in the trade situation to the other OECD countries.¹²

1982 exports from the consumer goods area were disproportionately small; exports of capital goods decreased. For industrial consumer goods, which at 7 percent of the overall export mix play a very small part anyway, this development reflects mainly the reduced purchase of textiles. Only 20 percent of total deliveries fell to the capital goods industry products (mechanical engineering and electrical engineering)--the technology transfer was smaller than ever before since the beginning of the 1970s.

The emphasis in the GDR's increased 1982 purchases was on goods for current production, but also for private consumption. One-third of all excess imports for the whole years occurred in November and December. The largest items at that time were rolled steels and sheet metal.¹³ At the end of the year the GDR also placed additional orders for high-grade foodstuffs and, to a lesser extent, industrial consumer goods (yard goods, woolens and knit goods). For increased consumption of food items, GDR purchases in November and December consisted primarily of cheeses, chocolate products (chocolate bars, pralines), cocoa, tea and coffee, cookies, baked goods, sauces, soups etc¹⁴. These purchases have apparently some connection with the Politbureau session of 20 October, during which decisions were made on measures to improve the food supply of the population¹⁵.

While among the 1982 imports from the GDR there was a below-average increase in raw materials and manufactured goods, they nevertheless resulted in the largest part of revenue increases for the GDR because of their large volume.

This was equally true for chemical products and petroleum products (diesel fuel, gasoline, heating oil).

There was a great increase in 1982 in the consumer goods area, the next-highest production area (barely 25 percent). Textiles and clothing had the largest share in this. While imports of capital goods industry products rose more than proportionally, their small volume indicates that their share of producing additional revenue for the GDR in inner-German trade was only nominal. However, mechanical engineering did fairly well in this respect: having a sales increase of one-third, it achieved good results in 1982 especially in view of the poor situation of the capital goods industries in the FRG. Nevertheless, this branch of the economy, the leading one in the GDR's export activity, has a very small share of the FRG market.

The bottom line still shows that in inner-German trade the GDR achieves a great profit margin in the exchange of industrial consumer goods, which it needs to finance its trade deficit in the capital goods area. From that standpoint, there has been no change in the past year in the basic structures of inner-German trade.

Prospects

In 1982 the development of the GDR's foreign trade, as well as its internal economy, were unequivocally influenced by indebtedness problems. Due to its more favorable trade balance with the FRG in comparison with its position relative to the other Western countries, the GDR did not have to trim its imports from the FRG as much as it did in other trade with the West. It was however able to increase its volume of orders from the FRG only to the extent of its increase in exports, because financing problems arose in this part of trade with the West also due to restrictive practices by the banks.

The basically benevolent Swing rules of the FRG government in effect through 1985 have surely been a help to the GDR's creditworthiness, and it is no doubt of benefit to the medium-term development of inner-German trade. However, what was more important for the GDR's creditworthiness in the West was the fact that in 1982 it did everything possible to control its precarious situation so as to be a responsible debtor.¹⁶

The GDR's Western trade policy will continue in 1983 to suffer from the pressures of indebtedness, i.e., in its additional Western trade the GDR will have to continue striving hard to achieve trade surpluses. Since in that area the situation remains more tense than it is with respect to the FRG, there could be a continuation of the shifts in Western import trends which arose in 1982. But in 1983 too the GDR will have to index its orders to its export successes in the FRG, because restrictive banking policies influence inner-German trade also even though it remains the less problematic part of the GDR's trade with the West. A prognosis for inner-German trade in 1983 must consider the fact that this year the prices of petroleum products will retreat significantly. The GDR's exporting efforts will therefore be partially obliterated by price reductions. Increased exports will be more

difficult to achieve and the nominal expansion of trade will probably be smaller than it was in 1982.

The positive developments in 1982 should not tempt us into taking an uncritical view of this exchange of goods and its medium-term development prospects. The structural weaknesses and growth problems of this trade are well known and remain in effect; they were obscured only momentarily by the GDR's special constellation in Western trade. It is possible, even probable, that after a consolidation of the GDR's OECD trade there will arise a tendency of a shift back to the original flow of goods, thus reducing the growth opportunities of inner-German trade. Should in addition the current trend of sinking petroleum prices continue on a long-term basis, this would have additional negative effects upon inner-German trade. Reduced revenues to the GDR from the sale of its products would entail a weakening of the long-term growth of the decisive performance factor, i.e., imports from the GDR.

In the middle of this year the FRG will see an increase in its value-added tax. Until now, imports from the GDR benefited from an 11 percent and/or 5.5 percent credit; however, no adjustment is made for the increased tax rates which have since been decreed. Preferential treatment of importing from the GDR and therefore increased export prospects from the FRG to the GDR had a telling impact. From that point of view a compensation for the increasing value-added tax rates would therefore surely be desirable; but for fiscal reasons this would probably not be feasible right now. Maintenance of existing preferential treatment is of course indispensable if mutual trade relationships are not to be impaired.

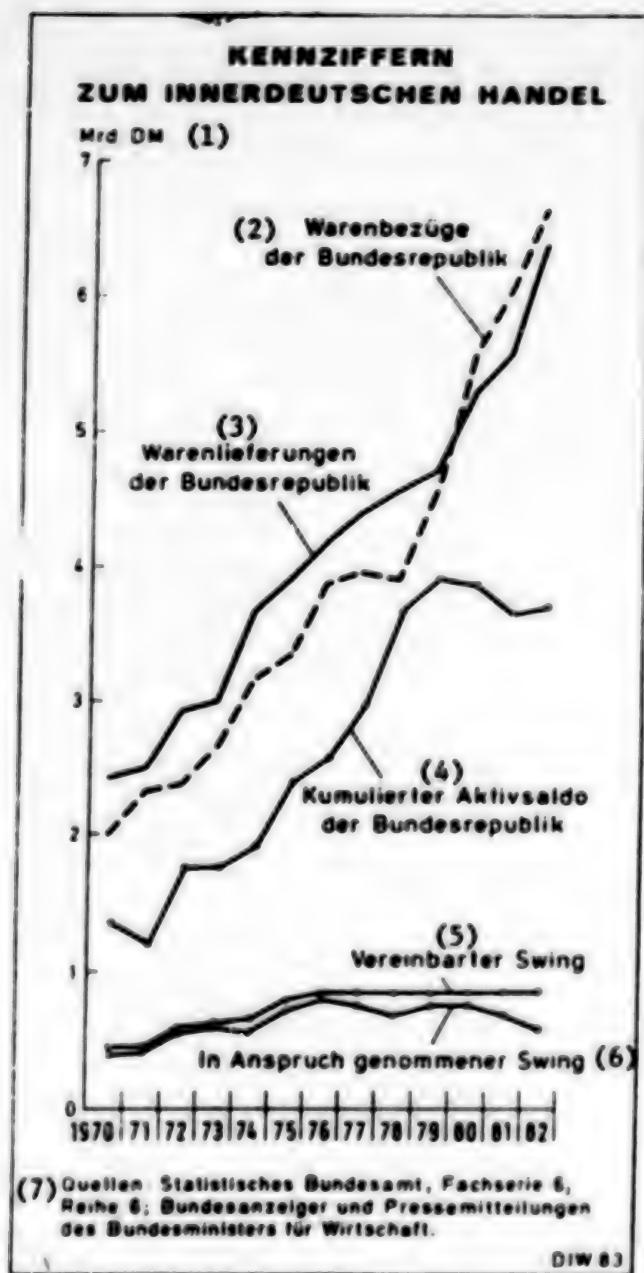
Exports from the FRG are taxed at 6 percent and/or 3 percent. It was introduced simultaneously with the establishment of preferential treatment in order to equalize a disequilibrium in the trade balance. This trade policy argument is still valid today. However, West Berlin represents a special case in this context. It is a basic objective to bolster Berlin's sales beyond its borders. Among other things, this is accomplished by lowered value-added tax rates on exports to the FRG territory. Analogous treatment of deliveries to the GDR would compensate for the disadvantage suffered by this portion of deliveries and would lead to greater participation by Berlin in inner-German trade.

FOOTNOTES

1. From data supplied by the Statistische Bundesamt (Federal Statistics Agency), Publication 6, Volume 6. They include goods movement across borders, but not services. Statistics by the Federal Ministry for Economics and the Trust Agency for Industry and Trade, which differ from the foregoing, are account statistics which calculate goods delivered and services rendered to the extent provided for in the Berlin Agreement.
2. On the last days of September and October this balance had still amounted to almost DM 450 million.

3. See also press release of the Minister for Economics of 2 March 1983.
4. By the middle of the year this balance had already declined to DM 3.4 billion.
5. For 1983, a contribution of DM 770 million was agreed upon, for 1984, DM 690 million; and for 1985, DM 600 million. The present arrangement takes the place of that in force from 1976 until the end of 1981, which was then extended by 6 months and which provided for a firm amount of DM 850 million. Prior to that (from 1968 on) there was the socalled "dynamic" Swing. Had this arrangement, which was made by the government of the great coalition, been maintained in force, the Swing would at this time amount to DM 1.5 billion.
6. In January 1983 the GDR made use of only DM 367 million of available Swing funds: this is inexplicable inasmuch as according to the agreement it has DM 770 million at its disposal this year, and also in view of existing financial difficulties with FRG banks.
7. There are no official price statistics for inner-German trade. Price level developments can be recognized only from DIW calculations. They are partly based on direct price inquiries for selected products for which quantity as well as value data are available. There are therefore very exact price data available for many individual items. Where individual price calculations were not possible or appropriate, because the goods involved were heterogeneous or because available figures covered several different types of products, calculations were made using FRG export and import price statistics as well as those for industrial manufacturers' prices. Both types of calculations were always weighted for the goods structure of inner-German trade.
8. To date there are no official data on this from the GDR.
9. See also: "Indebtedness Problems Reduce GDR Growth Opportunities," edited by Doris Cornelsen. IN: WOCHEBERICHT DES DIW, 32/1982.
10. Inner-German trade is calculated in accounting units (VE).
11. "Exchange of Goods Under Tensions Caused by Politics and the Economy." In: Politics and History, supplement to the weekly DAS PARLAMENT, 9 October 1982.
12. Even for the grain deliveries ordered in 1983 from Canada rather than from the United States (1 million tons), the country which had in the past few years made the largest grain sales to the GDR, the difference in granting credit between the two countries was apparently the decisive factor.
13. In 1982, deliveries more than doubled in value from the previous year (to DM 35 million); 50 percent of this figure occurred during the last two months of the year.

Graph 1.



14. Quantitatively, the significance of these deliveries is not very great within the framework of inner-German trade; (e.g., per GDR inhabitant it amounted in 1982 to 170 grams of chocolate, 75 grams of pralines, 190 grams of roasting coffee and 200 grams of cheese); but we should not under-estimate the psychological value of any kind of availability of greatly desired products of the West. However, the population is frequently angered by their sales in Interships and fancy stores, many of which were established during the 1970s, because of their high price or the fact that they can be paid for only in Western currency.

15. See also quote of General Secretary Erich Honecker at the Fifth Session of the SED Central Committee. In: NEUES DEUTSCHLAND, 27/28 November 1982, p 4.

16. "Continued Harnessing of all Resources," edited by Doris Cornelisen. In: WOCHENBERICHT DES DIW, No 5/1983.

[Graphs and Tables]

Graph 1. [p 132] Reference Data for Inner-German Trade

KEY:

1. Billion DM
2. FRG Imports
3. FRG Exports
4. FRG Cumulative Active Balance
5. Amount of Swing Agreed Upon
6. Swing Actually Used
7. Sources: Federal Statistics Agency, Publication 5, Volume 6; BUNDESANZEIGER and press releases by the FRG Minister for Economics.

Table 1. [p 133] Inner-German Trade Development Since 1970

KEY:

1. Year	10. Status of Relative Indebtedness
2. Shipments	11. Increase in Shipments Over Previous Year
3. Imports	12. At Current Prices
4. Exports	13. At Constant Prices
5. Total Volume	14. In Billion DM
6. Balance	15. In Percent
7. Cumulative Active Balance Swing Actually Used portion Financed by Swing	

[Table Footnotes] 1) For the FRG including West Berlin. 2) Active balance of the FRG, financing balance from shipments of goods, services and the cash payment account (Special Account S). 3) Swing amount

Table 1.

1) Der Bundesrepublik Deutschland einschließlich Berlin (West). -2) Aktivsaldo der Bundesrepublik Deutschland, Finanzierungssaldo aus dem Konsumenten- und dem Barzahlungskonto (Sonderkonto 5). -3) Von der Deutschen sozialen Republik im Jahre 1949 tatsächlich beansprucht genommenen Swings. -4) Vermögenssaldo von kumuliertem Aktivsaldo des Verhältnisses der Bundesrepublik zu den dazugehörigen aus der Deutschen Demokratischen Republik. -5) Unter Berücksichtigung der vom BfW errechneten Preisentwicklung.

(17) **Staatsliches** Bürosamt, Dresden, Sachserie 6, Reihe 6, Sachserie 17, Reihe 6 und Reihe 6; **Bundesanzetger:** **presenten** Mitteilungen des Bundesministers für Wirtschaft.

Table 2.

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Lieferungen in die DDR (6)	100	102	111	134	136	142	143	143	153	167	160	164	
Bezüge aus der DDR (7)	100	101	102	110	150	147	160	160	202	233	256	255	
Terms of Trade ¹⁾	100	99	100	94	90	92	89	89	92	76	72	71	72
Lieferungen in die DDR (6)	-	0	2	9	21	1	5	0	0	7	9	8	2
Bezüge aus der DDR (7)	-	1	1	16	27	-2	9	0	-3	29	16	10	0
Terms of Trade ¹⁾	-	-1	-1	-6	-5	3	-4	0	3	-17	-5	-2	2
(2) Veränderung gegenüber dem Vorjahr in %													
(3) Preisentwicklung nach Warengruppen													
(4) Lieferungen in die DDR, Index 1970 = 100													
<u>Ergebnisse der (8)</u>													
Grundstoff- und Produktionsgüter- (9)	100	96	96	106	139	136	143	138	136	152	171	163	165
Investitionsgüter- Industrien (10)	100	107	111	116	128	139	145	151	155	160	168	168	169
Verbrauchsgüter- Industrien (11)	100	102	106	114	123	126	131	136	138	145	150	150	166
Landwirtschaft und der Ernährungsgüterindustrie (12)	100	103	107	110	131	131	136	146	144	140	156	176	169
(5) Bezüge aus der DDR, Index 1970 = 100													
<u>Ergebnisse der (8)</u>													
Grundstoff- und Produktionsgüter (9)	100	100	97	120	146	101	196	192	182	272	375	372	364
Investitionsgüter (10)	100	102	102	102	101	117	122	123	124	127	136	145	150
Verbrauchsgüter- Industrien (11)	100	103	107	118	129	132	139	144	147	155	165	173	176
Landwirtschaft und der Ernährungsgüterindustrie (12)	100	98	102	125	136	125	144	147	138	140	146	151	152

¹⁾ Ausfuhrpreise : Einfuhrpreise x 100. (13)

Quellen: Statistisches Bundesamt, Wiesbaden, Warenverkehr mit der Deutschen Demokratischen Republik und Berlin(Ost), Fachserie 6, Reihe b, verschiedene Jahrgänge; Preise und Preiskontrolle für gewerbliche Produkte (Fertigerprodukte), Fachserie 17, Reihe 2; Preise und Preisindizes für die Ein- und Ausfuhr, Fachserie 17, Reihe 5, verschiedene Jahrgänge; Berechnungen des IWH.

actually used by the GDR (annual average). 4) Ratio of Swing amount used to cumulative active balance. 5) Ratio of FRG cumulative active balance to imports from the GDR. 6) Using price development figures calculated by the DIW.

17. Sources: Federal Statistics Agency, Wiesbaden, Publication 6, Volume 6; Publication 17, volumes 2 and 8; BUNDESANZEIGER; Press releases of the Federal Minister of Economics.

Table 2. [p 134] Price Development in Inner-German Trade

KEY:

1. Total Trade Volume (Index 1970 = 100)
2. Change from Previous Year (in percent)
3. Price Development by Class of Merchandise
4. Exports to the GDR (Index 1970 = 100)
5. Imports from the GDR (Index 1970 = 000)
6. Exports to the GDR
7. Imports from the GDR
8. Products of the...
9. Raw Materials and Manufactured Goods Industries
10. Capital Goods Industries
11. Consumer Goods Industries
12. Agriculture and Food Products Industries
13. [Table footnote 1)] Export Prices = Import Prices x 100
14. Sources: Federal Statistics Agency, Wiesbaden, "Trade with the GDR and East Berlin," Publication 6, Volume 6, for the various years; "Prices and Price Indices for Industrial Products," (Manufacturers' Prices). Publication 17, Volume 2; "Import and Export Prices and Price Indices," Publication 17, Volume 8, for various years; calculations by DIW.

Table 3. [p 136] FRG Imports¹⁾ in Inner-German Trade by Class of Merchandise

KEY:

1. Product Groups or Products
2. Changes in 1982 from Previous Year
3. Structure
4. In percent
5. Products of Raw Materials and Manufactured Goods Industries²⁾
6. among them: Gasoline
7. Diesel Fuel
8. Heating Oil, medium and heavy
9. Iron and Steel³⁾
10. Non-Ferrous Metals⁴⁾
11. Chemical Products⁵⁾
12. Inorganic Raw Materials
13. Organic Raw Materials and Chemicals
14. Synthetic Materials and Products⁶⁾
15. Products of the Capital Goods Industries

16. among them: Mechanical Engineering Products
17. Electrical Engineering Products
18. Iron, Sheet Metal and other Metal Products
19. Consumer Goods Industries Products
20. among them: Glass and Glass Products
21. Wood Products
22. Furniture
23. Textiles
 24. Textiles for Home Use
 25. Knitted Goods and Woolens
 26. Clothing
 27. Outer Garments⁷⁾
28. Products of Agriculture⁸⁾ and of the Food and Gourmet Foods Industries
29. among them: Grain
30. Cattle for Slaughtering⁹⁾
31. Candy and Sweets¹⁰⁾
32. Total Products¹¹⁾
33. Incorrect totals caused by rounding off figures.
34. [Table footnotes]
 - 1) Including West Berlin. 2) Including Mining Products. 3) Including foundry, drop-forging, cold-rolled steel and steel processing products.
 - 4) Including their intermediate products. 5) Including synthetic materials products and rubber products. 6) Including synthetic latex.
 - 7) Including finished fur garments. 8) Including game, forestry and fishery products. 9) Including fresh pork meat. 10) Including processed fruit. 11) Including miscellaneous products not categorized above.
35. Sources: Federal Statistics Agency, "Trade with the GDR and East Berlin," Publication 6, Volume 6 (1981 annual summary issue and issue of December 1982.

Table 4. [p 137] FRG Exports¹⁾ in Inner-German Trade by Class of Merchandise

KEY:

1. Product Groups or Products
2. Changes in 1982 from Previous Year
3. Structure
4. In percent
5. Products of Raw Materials and Manufactured Goods Industries²⁾
6. among them: Mining products
 7. Coal, Coke
 8. Petroleum
 9. Iron and Steel³⁾
 10. Smelter products
 11. Non-Ferrous Metals⁴⁾
 12. Silver
 13. Chemical Products⁵⁾
 14. Inorganic Raw Materials
 15. Organic Raw Materials and Chemicals
 16. Synthetic Materials and Products⁶⁾
 17. Products of the Capital Goods Industries

Table 3.

Erzeugnisgruppen bzw. Erzeugnisse (1)	1961	1962	(2) Veränderung 1962 gegenüber dem Vorjahr		(3) Struktur 1961	(4) in %
			In Mill. DM	In %		
Erzeugnisse der Grundstoff- und Produktionsgüterindustrien (5)	3 457	3 701	245	7.1	55,7	
darunter: Metallurgie in (6)	326	306	-17	-5,3	5,4	4,6
Güteklassen (7)	942	1 024	82	8,6	15,4	15,4
Holz-, mittelstahl- (8)	269	273	4	1,4	3,4	3,4
Eisen und Stahl (9)	314	293	-21	-6,8	5,2	4,6
Metalle 4(10)	250	251	1	0,4	4,1	3,8
Chemische Erzeugnisse 5) (11)	782	880	98	12,6	12,9	13,3
Anorganische Grundstoffe und Chemikalien (12)	107	107	0	0,0	1,8	1,5
Organische Grundstoffe und Chemikalien (13)	210	229	19	9,2	3,5	3,4
Kunststoffe und Kunststofferzeugnisse 6(14)	248	290	42	17,3	4,1	4,4
Erzeugnisse der Investitionsgüterindustrien (15)	582	662	79	13,6	9,6	10,0
darunter: Maschinenbauerzeugnisse (16)	138	188	51	36,8	2,3	2,6
Elektrotechnische Erzeugnisse (17)	193	228	35	18,5	3,2	3,4
Eisen-, Blech- und Metallwaren (18)	92	107	14	16,4	1,5	1,6
Erzeugnisse der Verbrauchsgüterindustrien (19)	1 296	1 520	222	17,9	21,4	21,0
darunter: Glas und Gläserwaren (20)	87	104	17	19,4	1,4	1,6
Holzwaren (21)	268	301	33	12,2	4,4	4,5
Metall (22)	223	248	25	11,7	3,7	3,7
Textilien (23)	386	451	65	16,9	6,4	6,8
Heim- und Haustextilien (24)	106	125	18	17,2	1,4	1,9
Wirk- und Stoffwaren (25)	185	210	25	13,7	3,1	3,3
Bekleidung (26) (27)	304	403	99	32,7	5,0	6,1
Operatelleitung (28)	197	261	65	32,9	3,3	3,9
Erzeugnisse der Landwirtschaft (29) und der (28)	679	706	27	3,9	11,2	10,6
Nahrung- und Genussmittelindustrien						
darunter: Getreide (29)	164	168	4	2,4	2,7	2,5
Schlachtvieh (30)	264	281	16	6,2	4,4	4,2
Zucker- und Süßwaren (31)	94	92	-2	-2,1	1,6	1,4
Alle Erzeugnisse (32)	6 051	6 639	589	9,7	100,0	100,0

(33)

Anmerkungen in den Summen durch Kunden der Zahlen.

1) E inschl. Berlin (West). - 2) E inschl. Bergbaugerzeugnisse. - 3) E inschl. Gießereigerzeugnisse sowie Erzeugnisse der Zinkherstellung. Kettlwerke und der Stahlverarbeitung. - 4) E inschl. deren Heizzeug. - 5) E inschl. Kunststoffgerzeugnisse und Gummiwaren. - 6) E inschl. synthetischer Kautschuk. - 7) E inschl. veredelter Baumwolle und Pflanzenfasern. - 8) E inschl. Jagd-, Forstwirtschaft und Fischerei. - 9) E inschl. frisches Schneefleisch. - 10) E inschl. verarbeitetes Obst. - 11) E inschl. nicht zugeordneter Waren.

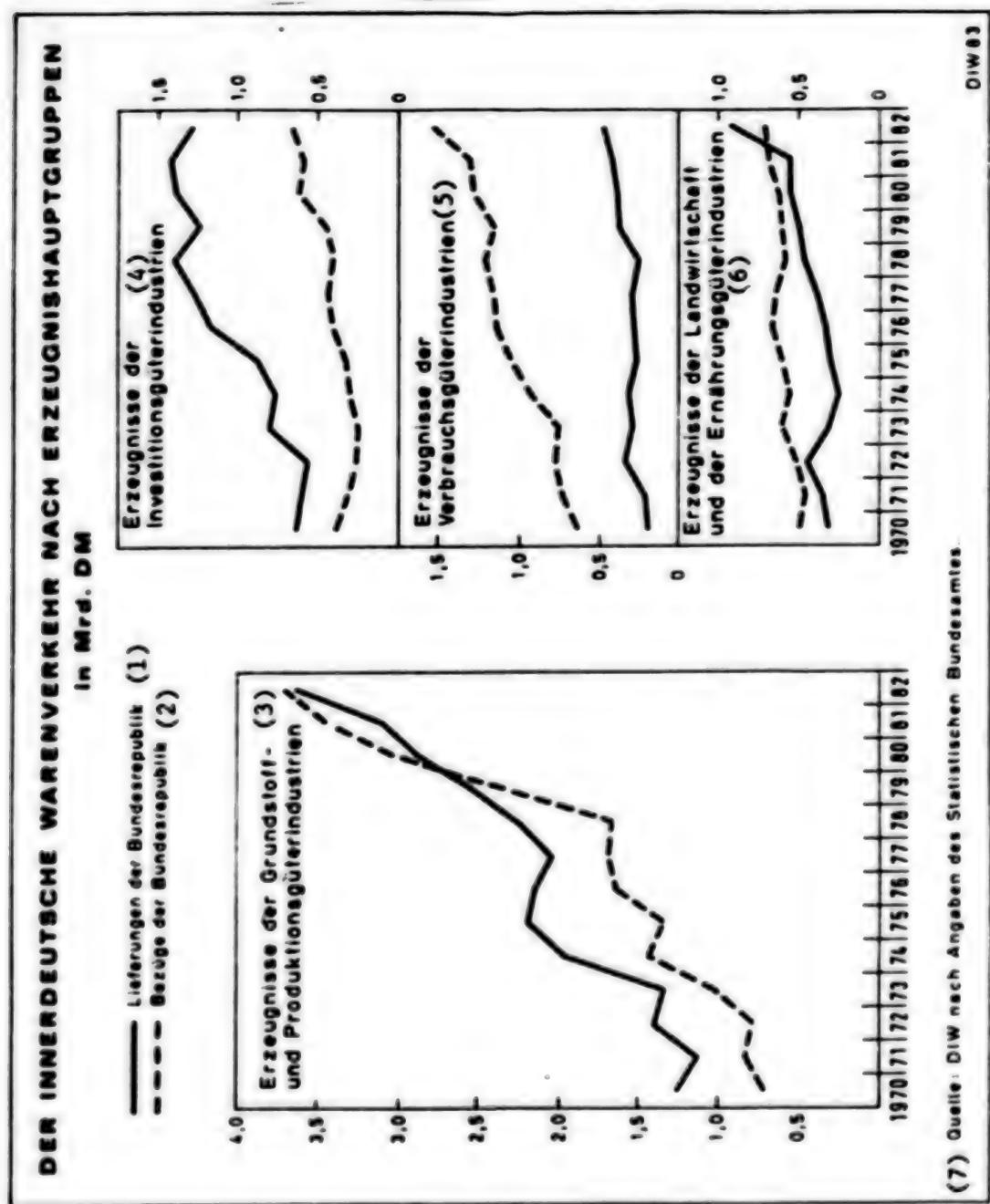
Quellen: Statistisches Bundesamt, Warenausfuhr mit der Deutschen Demokratischen Republik und Berlin (Ost), Fachserie 10 Nr. Reihe 6 (Jahresheft 1961 und Dezember 1962).

(34)

Table 4.

Erzeugnisse bzw. Erzeugnisse (1)	1941	1942	Struktur 1942 gegenüber dem Vor Jahr		(3) Struktur 1941
			in Mill. DM	(4) in %	
Erzeugnisse der Grundstoff- und Produktionsgüter-Industrien (2)					
darunter: Bergbauliche Erzeugnisse (6)	1 106	3 630	522	16,8	55,7
Kohle, Gas (7)	1 040	1120	-220	-21,2	18,8
Erdöl (8)	334	106	-228	-66,3	1,7
Erze und Eisen (9)	689	693	4	0,5	10,8
Erzeugnisse der Metallindustrie (10)	316	623	207	65,2	6,0
NF-Metalle (4)	256	517	261	103,2	4,6
Silber (12)	391	560	169	43,1	0,1
Chemische Erzeugnisse (13)	703	272	199	34,0	3,6
Anorganische Grundstoffe (14)	996	1 384	288	26,3	4,2
Organische Grundstoffe und Chemikalien (15)	1 169	1 177	8	5,3	2,8
Kunststoffe und Kunststoffverzweigungen (6)	388	596	108	43,3	8,7
Erzeugnisse der Investitionsgüterindustrien (17)					
darunter: Maschinenbauerzeugnisse (18)	1 420	1 277	-142	-10,0	25,5
Metallbearbeitende und Präzisionsinstrumenten (19)	972	696	-26	-26,3	17,4
Anlagen für die chemische Industrie und den Bergbau (20)	338	309	-29	-8,6	6,1
Elektrotechnische Erzeugnisse (21)	153	234	81	52,7	4,8
Erzeugnisse der Verbrauchsgüterindustrien (22)					
darunter: Textilien (23)	419	473	54	12,6	7,4
Erzeugnisse der Landwirtschaft (7) und der Nahrungs- und Gewinnmittelindustrien (24)	187	236	49	26,3	3,7
darunter: Getreide (25)	560	927	367	65,5	10,0
Kerne, Bohnen, Hülsenfrüchte (26)	7	133	131	64,6%	2,1
Ölfrüchte und Schrot (27)	101	134	33	25,0	2,1
Alle Erzeugnisse (28)	199	311	111	55,8	4,9
	5 576	6 367	807	14,5	100,0
Abweichungen in den Summen durch Runden der Zahlen. (29)					
(30)	Berlin (West) -2% (inschl. Bergbaurerzeugnisse, -)Eisensch. Gießereierzeugnisse sowie Erzeugnisse der Ziehereien, Metallwaren und der Stahlverarbeitung. -4% (inschl. deren Holzezeugnisse und Kunststoffverzweigungen sowie Gummiwaren, -)Eisensch. synthetischer Kautschuk. -7% (inschl. Jagd-, Forstwirtschaft und Fischerei). -0% (inschl. nicht zugeordneter Waren).				
Quellen:	Statistisches Bundesamt, Warenverkehr mit der Deutschen Demokratischen Republik und Berlin(Ost), Fachserie 6.				
(31)	Reihe 6 (Jahresheft I und Dezember 1942).				

Graph 2.



18. among them: Mechanical Engineering Products
19. Metal Machining and Testing Machines
20. Chemical Industrial and Mining Plants
21. Electrical Engineering Products
22. Consumer Goods Industry Products
23. among them: Textiles
24. Products of Agriculture⁷⁾ and of the Food and Gourmet Food Industries
25. among them: Grain
26. Unprocessed Oils
27. Oil cake and Ground Cereals
28. Total Products⁸⁾
29. Incorrect totals caused by rounding off figures.
30. [Table footnotes]
 - 1) Including West Berlin. 2) Including Mining Products. 3) Including foundry, drop-forging, cold-rolled steel and steel processing products.
 - 4) Including their intermediate products. 5) Including synthetic materials products and rubber products. 6) Including synthetic latex. 7) Including game, forestry and fishery products.
 - 8) Including miscellaneous products not categorized above.
31. Sources: Federal Statistics Agency, "Trade with the GDR and East Berlin," Publication 6, Volume 6 (1981 annual summary issue and issue and issue of December 1982.

Graph 2. [p 138] Inner-German Merchandise Trade by Main Product Groups (in Billion DM).

Key:

1. FRG Exports
2. FRG Imports
3. Products of the Raw Materials and Manufactured Goods Industries
4. Products of the Capital Goods Industries
5. Products of the Consumer Goods Industries
6. Products of Agriculture and Food Processing Industries
7. Source: DIW, from Federal Statistical Agency data.

9273

CSO: 2300/218

GERMAN DEMOCRATIC REPUBLIC

SYMPORIUM HELD ON USE OF MICROELECTRONICS IN 1980'S PRODUCTION

East Berlin WIRTSCHAFTSWISSENSCHAFT in German Vol 31 No 3, Mar 83 (signed to press 15 Jan 83) pp 411-424

[*"Conferences, Reports, Information"* feature report by Christa Zurawski on symposium on 'Microelectronics and Intensively Expanded Reproduction,' sponsored by Central Institute for Economic Sciences (ZIW), GDR Academy of Sciences, East Berlin, 5-6 October 1982]

[Text] On the basis of objectively changed production conditions, the intensification and efficiency increase of the national economy are becoming more and more important in implementing the economic strategy of the 80's. For economists, this implies the task of constantly reexamining problems as they arise and the directions towards their solutions, and of drawing conclusions for implementing economic strategy.

A contribution towards this was made by a two day symposium on the topic 'Microelectronics and Intensively Expanded Production'. This was instituted by the Central Institute for Economics (ZIW) of the Academy of Sciences of the GDR, on 5-6 October 1982, in Berlin. The symposium was opened by a lecture by Professor Dr. K. Steinitz, acting director of the Central Institute, on the topic 'Theoretical Production Problems in the Development and Application of Microelectronics'. The lecture was followed by a lively and manifold exchange of opinions concerning the questions raised in the paper.

The symposium combined representatives from social-science and natural-science institutes as well as from the state planning commission and the combines. The breadth of problems was also reflected in the complex character of the papers and of the discussion, which comprised both political-economic basic questions as well as problems of economic policy concerning the development and application of microelectronics.

An important concern of the main paper and of the discussion was to make visible the essential relationships between production conditions of the national economy of the GDR and the economic strategy in the 80's under the aspect of microelectronics. It concentrated on the following four problem areas, which also were the focus of the discussion:

1. Relationship between the scientific-technical revolution, especially in microelectronics, and the upward development of productive forces, especially the

material-technical basis of socialism;

2. relationships between the changed production conditions in the GDR and the effectiveness of microelectronics;

3. interactions between the scientific-technical revolution and the development of efficiency in the national economy, especially in terms of microelectronics as an example;

4. effects of the scientific-technical revolution, especially involving microelectronics on cost and benefit structures, on time patterns, as well as on the internationalization of the production process.

First, the paper raised the question concerning the formation of a new type of technology. To what extent is it justified to speak of the formation of a new type of technology as a consequence of the effects of microelectronics (as the centerpiece of scientific-technical progress)? This can be answered only, in the view of the lecturer, if one determines the effect of microelectronics on deep changes in the material-technical basis and in the totality of productive forces. He named the following criteria to identify deep changes in all elements and of the system of productive forces and thus of the material-technical basis of the communist-social formation, criteria which speak in favor of a positive reply to the question concerning the perspective formation of a new type of technology:

- Formation of a new and higher production and efficiency potential in the production process
- Development of a basically new relationship between man and technology (right up to the effects of all-around personality development)
- Development of new, favorable presuppositions for a resource-saving economic growth.

It is supposed to be characteristic for microelectronics that, simultaneously with its typical characteristics and effects, it also creates those presuppositions which make it possible to utilize existing technologies and methods right up to their performance limits. These characteristics and effects are the following: First, a high degree of combination of complexity, breadth, depth, and duration of effects, secondly the formation of an information-processing technology as a qualitatively new element of the material-technical base, and third the conditions for developing and applying the technologies and methods. This means that microelectronics also opens up many opportunities for the effective utilization of the existing material-technical base.

In further explanations, it was substantiated that the productivity and efficiency potential of microelectronics, which is decisive in terms of the national economy, its role in the formation of the new position of persons in the production process, and its weight in the implementation of a resource-saving economic growth, is based on these three characteristics and tangential effects of microelectronics. Especially under the aspect of resource-saving economic growth and intensification of the production process, more stringent requirements are imposed on this new type of technology. For these, microelectronics provides decisive scientific-technical and economic implementation opportunities.

It was emphasized that the implementation of the basic possibilities of microelectronics, especially as regards the tempo and extent of economic and social effects, proceeds in a long-term and contradictory process and depends on various conditions and factors. This concerns especially the completion of the economic mechanism, the further socialization of production and work, the deepening of international socialist division of work as well as the scientific-technical and material resources, organized into cadres, which are available for a broad application of microelectronics. Here, the basic possibilities of microelectronics for intensifying the national economy and for making it more efficient should be joined as effectively as possible with the existing specific conditions in the GDR, so as to achieve the anticipated and objectively necessary effects.

As regards the necessity for combining the development and application of microelectronics in manifold ways and means with the upwards development of socialist production conditions, the following aspects were especially emphasized:

- Social consequences of the development and application of microelectronics
- Determination of the objectives of this development in applications corresponding to the social-economic conditions and requirements of socialism
- Interactions between development and application of microelectronics and the further socialization of production and work
- Further development of the economic mechanism for the accelerated application of microelectronics and other basic innovation processes.

Steinitz emphasized that, for the development of the national economy in the 80's, it was essential to improve the conditions of the national economy so that microelectronics, together with other main directions of the scientific-technological revolution, would contribute more effectively towards increasing output and efficiency. Here, microelectronics, together with other innovation processes, must fulfill a double function:

1. Restriction of cost-increasing factors
2. Creation of the preconditions for opening up new and more efficient paths of production within the existing material-technological base.

Microelectronics opens up manifold possibilities for allowing simple production to become effective as a factor of expanded production.

In his further explanations, Steinitz discussed the changed conditions and paths for productivity increases in the 80's, microelectronics as a new source of efficiency improvement, as well as the relationship between the efficiency potential of microelectronics and its actual utilization:

In connection with the development of the scientific-technological revolution and of intensively expanded production, the paths towards productivity increases also change; under these conditions, the increase in productivity is no longer based primarily on the multiple use of objectified work. Due to the comprehensive application of scientific and technological progress, especially the qualitative development of production elements, the relationships of objectified work and living work also change; key questions here are a higher tempo of technological progress per unit of basic fundamental growth and the higher refinement and saving of raw

materials, energy, and material per unit time of living work.

The efficiency potential of microelectronics was defined as the totality of the possible effects of development, production, and application of microelectronics on the efficiency of social production. Here it is supposed to be significant that this potential is derived not solely from the technical capabilities of microelectronics, but from the specific historical development state of social production. In this connection, Steinitz substantiated his idea of distinguishing between the theoretical efficiency potential, the efficiency potential that is implementable under the specific economic and social conditions of the GDR in a given time period, and the efficiency implemented in the national economy of the GDR. For the development of the national economy of the GDR, and the implementation of the economic strategy in the 80's, the implementable efficiency potential plays a decisive role. The degree of implementation of the efficiency potential finally depends on the scientific-technological and economical potentials available in the national economy (according to level, structure, and scope), on the level of international socialist allocation of work, on access to international, new, scientific-technical information, technologies, and equipment, as well as on the capability of socialist society of utilizing the advantages and driving forces of socialist production conditions for the comprehensive and rapid deployment of potential efficiencies.

Finally, some questions of value formation and implementation were treated under the aspect of the development and application of microelectronics. Here, Steinitz concentrated on the following:

- The increasing role of the development of use value for the dynamics of socially necessary costs, especially its recognition and implementation on international markets;
- the internationalization of value and of use value that is connected with microelectronics;
- the increasing role of the time aspect in value formation and implementation;
- the change in cost structures, especially between running and unique expenditures, as well as between components and final products, and their role for further development and implementation;
- specific aspects of qualified work (research and development, software) in the value formation process.

For the determination of socially necessary work relevant to a particular type of product, the development of use value is playing an increasing role. A special influence of microelectronics in determining the socially necessary work is supposedly derived from the very rapid increase of use value of the products and from its great spin-off to many branches of the national economy. This influence of microelectronics is supposedly highly significant for solving international economic problems, especially for increasing the competitive position of GDR export.

In this connection, the refinement processes based on microelectronics are especially important. Supposedly connected with this is the necessity of constantly achieving high efficiency for the qualified living work. Nevertheless, this must actually be expended and implemented as complicated, multiplied simple work (element of the value formation process) and as socially necessary work which is recognized on international markets. Attention would have to be paid here to questions

of changes in the cost structures: When using microelectronics, there is a clear shift of the relationship between one time and running expenditures in the direction toward one time expenditure. This means that the advance investments increase. This development is especially supposed to be an expression of the high research intensiveness of microelectronics, the increasing expenditures for modern technological special equipment for development and production of microelectronic components, the increasing software expenditures which even today considerably exceed hardware costs. Especially as regards this question, there are conclusions concerning the strategy of development of application of microelectronics in the national economy of the GDR. This is supposed to affect especially the problems of the necessary deepening of international specialization and cooperation in research and production, especially with the USSR, so as to keep step with international developments and so as to be able to open up comprehensively the potential efficiencies of microelectronics for the development of the national economy of the GDR.

The currency of the problems raised in the paper was also reflected in a subsequent discussion, whose central points were the following:

- Development of the scientific-technological revolution and of the material-technical base in its connection with the intensively expanded production and the implementation of the national strategy of the GDR in the 80's;
- efficiency and structural developments in the national economy of the GDR under the influence of microelectronics;
- International socialist work division in connection with the development and application of microelectronics.

In this discussion, the problems of the relationship between the scientific-technological revolution, the acceleration of scientific-technological progress, and the development and modification of the material-technical base occupy considerable space. Here, the questions of renewed types of technology, the information processing technology, of the innovation processes, of flexible automation, of accumulation, and of investments were paid special attention.

Professor Dr. H. Nick (Academy for Social Sciences at the Central Committee of the SED) pointed out the central position which information-processing technology occupies within the process of the scientific-technological revolution. It could be regarded as the connecting link between the scientific-technological revolution and the base innovation microelectronics. Precisely for microelectronics, it is supposedly characteristic that it strongly accelerates the development and propagation of information-processing technology. Herein also lies the special economic potencies and effects of microelectronics in view of development of the material-technological base of the national economy. Under the present production conditions, it surely should be highly significant for economic practice, how successfully microelectronics can be integrated into existing technology. In the renewal of the material-technical base of the national economy, the correct and efficient combination of a new type of technology with existing technology, consequently plays an important role. On the basis of changed production conditions, the following factor would be decisive for the GDR: By means of scientific-technological progress, how will it be possible to reduce the fraction of extensive developments in the national economy. The achievements of scientific-technological progress, and especially of microelectronics, offer the opportunity of applying complex and simultaneously

investment-saving solutions to this problem. The renewal of basic funds which proceeds along this path also should require the questions of moral deterioration to be regarded under new perspectives. Economic theory is presently thought to be confronting the task of rethinking questions associated with the renewal of the material-technological base, that is questions of simple production and accumulation, especially also under the aspect of the structural changes in the economy which are caused by microelectronics.

The problems of the development of the material-technological base under changed production conditions were also treated by Prof. Dr. H. Maier (Institute for Theory, History, and Organization of Science of the Academy of Sciences of the GDR). In contrast to the explanations in the main paper, Maier defended the view that the concept of a "new type of technology" - corresponding to the tradition of the history of political economy - should be applicable only for the development phase of communism. The reason for this is that, in the first phase, the socialist phase, the property conditions have indeed changed, but no basic transformation of the technology of this social formation as compared for the technology of capitalist social systems has been accomplished. For the development and modification of the material-technological base, the basic innovations, such as microelectronics, the energy complex, biotechnologies, as carriers of scientific-technological progress, are decisively significant. Their essence supposedly consists primarily in the fact that on the one hand, they open up new fields of effectiveness, by bringing out problem technologies with a high efficiency potential and by creating new savings potentials, and on the other hand destroy existing efficiency potential. The investments necessary for the qualitative changes of the material-technological basis and the economic-strategic objectives of the 80's, Maier emphasized, would be available in the required scope only if the basic innovation of microelectronics could successfully be established in the national economy at a very fast rate and a very great breadth.

The orienting and informative explanations of R. Heinze (representative of the Chairman of the State Planning Commission) were also dedicated to this problem area and to the other four points of discussion. Starting from the corresponding party decisions, he emphasized that all decisions which are to be made regarding the accelerated development and application of microelectronics in the national economy, and all efforts which are made towards its implementation, must be understood as a task of first-priority political, economic and strategic significance in the 80's. The tasks and problems which are to be solved from this perspective, especially in view of designing the process of work division for the development and application of microelectronics, consist in the following, among others:

- Furnishing a coordinated assortment of microelectronic components and sub-assemblies, base-system documents, and means for supporting the preparations for application, by the electronic industry;
- working out specific application solutions on this base in the user combines, including their transfer to production.

Heinze pointed out that, as previous developments have shown, it was still necessary to open up reserves in the organizational linkage of microelectronic application with the creation of effective solutions in the development of final products and in the development of rationalization. In the future, the point would be to implement, to a greater extent, thoroughgoing and highly effective rationalization

solutions - connected with the production of new products. A precondition for this would be, as is also certified by international developments, the construction of powerful research and production capacities in the user combines. The increased effectiveness of microelectronics would require the increased creation of capacities for furnishing a comprehensive supply of base-system documents (software) and means for developing these system documents, including device technology from the electronics industry, as well as for working out specific user programs, by the user combines. It is supposed to be of special significance to utilize better existing and already created resources, and not to allow a wait-and-see attitude; this holds for product development as well as for software. Already functioning basic funds are to be made more effective and flexible by means of microelectronic utilization (supplementary automation).

Making reference to the central tasks to be solved in the national economy by 1985 and beyond, such as development of the energy base, replacement of imports from the non-socialist economic area, Heinze clarified the associated high requirements for effective solution variants.

The questions of the development of the material-technical base, especially of automation processes in several application areas of microelectronics, were the subject of the discussion contributions by Dr. R. Wätzig (tool machine combine "Fritz Heckert", Karl-Marx-Stadt), Prof. Dr. R. Reichel (College for Economy "Bruno Leuschner" Berlin) and Dr. H. Mittelbach (ZIW).

Wätzig discussed several problems of GDR tool machine construction, taking into account the international developments. The present international development in machine construction is supposedly characterized by the interactive process between technology-machine-automation-microelectronics. An important task in modern machine construction consists in constructing flexible and automated production lines even for small and medium series production and, by a high degree of automation of production processes, to facilitate the "unmanned shifts" in the enterprises. These objectives could be achieved only through the application of microelectronics in machine construction. On an international scale, the fraction of tool machines with microelectronic controls (NC and CNC) is constantly increasing. As a result, stringent requirements are composed on components since they significantly determine the increase of use value factors of the tool machine. On the basis of comprehensive technical progress in tool machine construction, however, it is supposedly necessary to regard the innovation in machines and systems not only under the aspect of applying microelectronics, but always in unison with the general technical development of these machines and systems. The internationally delineated structural developments in tool machine construction and the cost and price developments associated therewith impose very stringent requirements on tool machine construction in the GDR, especially with a view to guaranteeing the export of products even in the future, and of opening up new markets, within the framework of the CEMA (Council for Economic Mutual Assistance) and on the non-socialist market. As a consequence of this, and on the basis of the capitalist embargo policy in the area of scientific-technological progress, the conclusion for the GDR is that microelectronics and power electronics must constantly be developed and applied at a level corresponding to the world status.

Reichel explained that the formation of a highly effective infrastructure should be combined with the progressive socialization of production. Communications and communication technologies are part of this infrastructure, and they constitute a basic modification in the area of the management, planning, and control of social processes. Starting from international trends in this sector, which indicate a rapid development and alteration of transmission and communication technologies, Reichel discussed several requirements for the development of communications in the GDR in the years until 1990. He especially emphasized the growing requirement for quality and the level of microelectronic components for these technologies, as well as scientific-technological tasks for developing such complexes as glass fiber technology, opto-electronics, and others.

Mittelbach raised questions of the development of the material-technical base in the non-producing areas of the national economy. For the automation and rationalization of working processes in these areas, the information-transmitting and information processing technology supposedly is primarily decisive. It makes possible an essential change in the material-technical base of the non-producing areas and of the administrative work in the producing area. The possible effects, which occur only through a broad application of modern data processing technology, in its collaboration with more powerful software and more efficient org-wear, and which require considerable investment, can be opened up not in the short term, but only over a longer period. According to the view of Mittelbach, the application of modern information technologies in the 80's and 90's will lead to essential changes in the technique of managing, planning, and controlling general social, economic, and technical processes. This will also be connected with consequences for working styles and organizational structures of the corresponding organs.

The automation of the material base, especially flexible automation, raises problems which must be analyzed themselves not only from the perspective of the national economy but also under the perspectives of business economy. From this one derives certain tasks for business-economic research, which were discussed by Prof. Dr. J. Schmidt (Karl-Marx University, Leipzig). He outlined several general and specific research points, on which research and teaching are currently concentrating, such as:

- Determination of the efficiency of flexible automation
- Determination of optimal deployment conditions and evaluation of flexible automation solutions
- Requirements for the information system of the combines in connection with the introduction of flexible automation
- tasks involving business economics, for the management, planning, and preparation for flexible automation in the combines.

Within the framework of the first focal point in the discussion, a series of contributions was concerned with special problems of component development and production. From the perspective of natural-scientific research, Dr. Vollmar (Institute for Physics of Materials in the Academy of Sciences of the GDR) treated problems of the development and production of the most modern microelectronic components, especially highly integrated circuits (HLSI) as well as microprocessors and microcomputers. Since the power of modern devices and systems depends essentially on the quality and the level of the utilized microelectronic components, Vollmar emphasized, stringent requirements must already be imposed on research and development with each

process step of circuit production. To this must be added the constant acceleration of the time factor, which is observed internationally, which likewise exerts pressure on component development and production. So as to meet these requirements, it would be absolutely necessary that research and development have available, at the right time, the most modern technological special equipment and auxiliary materials. One path for utilizing more effectively the high advance expenditures, but also of overcoming difficulties in equipping research and development efforts, as well as production with special technological equipment, would consist in the further development and deepening of cooperative relationships with other research institutes and with practical application. Internationally, the formation of industrial-academic complexes and industrial-university complexes has proven itself very suitable in this connection.

The contribution of Prof. Dr. Reimer (Microelectronics Combine) was dedicated to similar questions. He too emphasized that the high performance requirements on research and development as well as production of microelectronic components, which result on the one hand from the international dynamics of microelectronics and, on the other hand, from the economic strategy in the GDR, lead to high advance investments. However, here it should not be overlooked that these costs for equipment and methods in the development and production of components are indeed constantly rising internationally, but the total costs of the components continue to fall. In this connection, Reimer emphasized that the high annual expenditures for research and development would have to be viewed in relationship to the total expenditures for microelectronics, but also in relationship to the growth in production which is achieved through microelectronics, if efficiency is the point under consideration.

Important questions in this connection concern the strategy of component production in its relationship to the user side. This was discussed by Dr. Sternagel (Applications Center of the Microelectronics Combine). He explained the method for working out this strategy and identified the place and the tasks of the application system in the area of the Ministry for Electrical Engineering/Electronics. The objective which is here being pursued should consist in the determination of a strategically multivalent useable component assortment.

In the discussion of the second focal point, many problems of efficiency and structural development were elucidated - in close reference to the first focal point and to international socialist work allocation.

In this connection, Heinze pointed out the influence which the struggle of the two world systems has on the development of microelectronics in the GDR. As a consequence of the scientific-technological and economic embargo policy and of the high tensions in international relationships as a result of imperialism, the GDR, for political and economic reasons, must develop microelectronics on a corresponding scope, as is necessary for the national economy. A problem of high current significance consists in the fact that the time for research and development as well as the time for transferring microelectronics components to mass production has to be greatly shortened-unless necessary decisions, on the basis of the national economy, have been made by the appropriate party and government edicts, and are being expressed in economic strategy. Starting from the direct connection of the structural changes in the economy with the efficiency problems of microelectronics and the national economy altogether, Heinze characterized the important causes of

of necessary structural change, which are derived from internal and external conditions.

The relationship between structural changes in the national economy, international developmental trends in microelectronics, and foreign economic policy also was the point of Prof. D.W. Marschall's (ZIW) contribution to the discussion. From the tension between the high international dynamics of scientific-technological progress and its deep influences on cost structures and prices on the one hand and the national efficiency and growth objectives on the other hand, the essential conclusions would result for the further development and application of microelectronics, which would have subsequent effects on the structure of the national economy.

Such structural changes should be implemented under two aspects:

- The quantitative aspect, to build up optimal series sizes as the possibility presents itself, which guarantee high efficiency;
- the qualitative aspect, that each performance at least approaches the internationally most progressive performance parameters and achieves these also at a favorable point in time.

If the qualitative performance parameters of internationally recognized parameters are not reached or are reached only at a very late point in time, the efficiency potential of microelectronics could not become fully effective. Likewise, qualitative top performances, available at the right time, could render a maximum contribution to efficiency only if the new products are produced in amounts so as to satisfy demand. The logical consideration of the interactions between quantity, quality, and time of furnishing of new products would have general significance for opening up the efficiency potential of scientific-technological progress.

Using as an example, the international development trends of several component data on efficiency, Prof. Dr. E. Rechtziegler (Institute for International Policy and Economy) clarified their informational power in estimating the efficiency effects of microelectronics and the associated structural changes in the national economy. In an international comparison of several capitalist countries, it has appeared, that, for example in the FRG, capital-intensifying factors such as expenditures for environmental protection, restructuring the national economy, and more of the like, can be compensated by work-saving technical progress. Here microelectronics plays a special role in this connection. The effects of work-saving technological progress could be demonstrated, among other things, by the example of the high increase of work productivity in several industrial branches (electronics industry, textile industry, construction industry). It is here noticeable that the increase in productivity is connected with a rapid reduction of energy expenditure in these branches. The increasing efficiency of microelectronics can also be demonstrated in terms of the development of funding intensity. For the funding intensity to fall or to remain the same in a growing number of industrial branches, the changed quality of investments plays an important role. Considerable changes in the relationship of construction and equipment investments were involved here. Within the equipment investments, the fraction of electrical engineering equipment has increased particularly strongly. The observed improvement of functioning efficiency in the national economy supposedly is not only an expression of stagnating and sometimes falling development of funding intensity in several branches, but supposedly also is based on the fact that the

structure of the national economy has been improved altogether and that efficiency improvements in such services as software, leasing, and consulting have positive effects on the efficiency of material production. Entirely significant also should be the changes of the use value structure of the products, which have a special effect in the modernization of the base funds, and which leads to important qualitative changes of the material-technical base as well as to considerable investment savings.

Prof. Dr. Stahnke (Technical University, Dresden) discussed the relationship between the application of microelectronics and product effectiveness as well as the possibilities of increasing the same. Starting from the necessity of regarding high effectiveness of microelectronics integrally in development-production-application, Stahnke proposed to make a differentiation according to three component areas:

- manufacturers of components
- producers of final products
- users of the products

It turned out that the efficiency of the products of microelectronics are codetermined significantly by the user. This reason should be especially important because it appears that, in the future, more and more users of smaller series will assert their need for components. But small series contradict efficient manufacture of components, since this essentially involves a technology for large numbers of units. The solution to this contradiction could be found only in the universal application of a limited assortment of components. This again imposes the most stringent requirements on all stages of component development right up to device production. According to Stahnke's ideas, the possibilities for the necessary further improvement of product efficiency of microelectronics consist in the following, among others:

- The further development and modification of traditional forms of collaboration between manufacturers and users,
- a better contextual determination of collaboration, which must extend beyond the levels previously attained.

Consequently, from the perspective of the efficiency of the national economy, a stronger integration of component manufacturers and users is necessary.

Within the framework of this efficiency consideration, questions of savings potentials and required expenditure form another focal point of the discussion.

The contribution of Dr. P. Ströhmel (ZIW) was concerned with several aspects of the determination of the material and energy economics savings potential of microelectronics by means of simple model considerations. The structure of this economic mathematical model was elucidated, and the conclusions derived therefrom, with respect to material and energy-economic savings effects were submitted for discussion.

The explanations of Dr. G. Schirmer (ZIW) were concerned with the possible influence of microelectronics on the energy base and on the energy intensity of the national economy of the GDR. As appropriate studies, have shown, microelectronics could make a significant contribution toward energy savings, where the effects of microelec-

electronics with respect to savings tend to lie in the following areas, among others:

- application of microelectronics in regulation control elements, in processes for the conversion of primary energy into use energy,
- utilization of microelectronics in energy-consuming production means and consumer goods,
- application of microelectronics in the regulation of remote heat supplies,
- application of microelectronics for the higher refinement of raw materials.

Linking with the contributions on savings effects from microelectronics, Prof. Dr. A. Braun (ZIW) developed some ideas on the problem of technical and economic savings potential. She pointed out that the point must be the technical savings potential which was talked about in the discussion contributions would have to be converted economically, and she indicated the following questions, which should be investigated and answered by economic research:

- How can technical savings potential be evaluated economically?
- What does economization of a particular resource cost?
- How should the processes occurring in connection with the savings potential be approached methodologically, especially under the perspective that an uneven distribution of energy and materials savings potential exists within the efficiency potential?

Another complex, which concluded the second focal point of the discussion, was dedicated to the problems of the influence of the application of microelectronics on social working assets. Questions of structural change of the work force potential of the national economy, especially problems of job loss, as well as the effects of microelectronics on the life style of workers outside their working conditions were discussed.

The starting point of these explanations by Dr. J. Wahse (ZIW) were the structural changes in the national economy of the GDR, which will take place in the 90's due to the application of microelectronics, as well as their effects on production conditions for the work forces. This influence would concern, on the one hand, the training and qualification of the work force. Since high social expenditures are connected therewith, a precise temporal and contextual determination of the requirements expected through microelectronics is necessary. On the other hand, it concerns job losses. Five sectors: production, management/information, cultural and social institutions, production management and services, participate very differently therein. In this connection, the changes of the qualification requirements for the work force in the above sectors and "typical displacement occupations" were also discussed.

Continuing with these explanations, Dr. R. Welskopf (Institute for Sociology and Social Politics) commented on the effects of microelectronics on the life style of workers outside the working sphere. The possibility of a changed use of free time, the rationalization of house work, and altered communication possibilities for people were all discussed. Welskopf emphasized that the production conditions in workshops, as modified by microelectronics, as well as the stringent requirements which will be imposed in the future on human thinking due to the development and application of microelectronics require timely reaction and appropriate logical

in the educational-political area. Educational policy measures which are not initiated at the right time and which are not adequate could become a hindrance for the desired rapid spread of microelectronics in the national economy.

Prof. Dr. H. Engels (of the same institute) was concerned with special problems of the utilization and effects of microelectronics in individual households. Making reference to the fact that, at present, in individual households in the GDR, about three billion working hours are expended annually, Engels pointed out that in this area a social problem of significance undoubtedly must be solved. As regards the application of microelectronics in individual households, the point is to start from the following premises: The elimination of certain activities from the individual household and their transfer into the service sphere as well as the rationalization of individual households through the utilization of microelectronics in combination with resulting possible effects, such as time and energy savings in the individual households, which can contribute towards further unfolding and utilizing the mental-creative capabilities of the human person, savings of material and energy with the mass-useable machine equipment and a favorable influence of the expenditure structure of the monetary income of the population.

The third focal point comprised problems in international socialist work division, taking into account the development and application of microelectronics in the national economy and also taking into account the achievement of economic-strategic tasks. The discussion indicated that the problems associated with the acceleration of scientific-technical progress in general and of the basic innovation of microelectronics in particular, necessarily raise the question of a further deepening of international social work division. In nearly every contribution to the discussion, it consequently played a role. Its significance for the solution of economic tasks was emphasized. It was clearly expressed that microelectronics, like scarcely any other technology, requires the international cooperation and specialization within the framework of the CEMA. This should concern both research and development in the area of microelectronics, for which major expenditures (material, financial, personnel) must be made, as well as the manufacture and effective utilization of the technological special equipment for the production of components, as well as the creation of effective production capacities for the manufacture of components and the final products. Just as the mastering of the very highly integrated circuits (VLSI technology) would currently require expenditures of an order which cannot be borne by one country alone. So that the development and application of microelectronics can keep step with international levels and tempos, questions of international socialist work division would have to be solved at a higher level.

The question concerning the portion which international socialist work division has in the formation and application of microelectronics within the national economy of the GDR was also taken up by Prof. Dr. P. Sydow (ZIW). For its effective contribution towards solving the tasks imposed on the national economy, the following questions must first be answered:

- determination of the research objectives in the area of microelectronics
- estimation of the application breadth,
- estimation of the present status of the international socialist work division as regards microelectronics.

According to his opinion, the point for all the CEMA countries is to achieve a certain level in the development and production as well as the application of the microelectronics. Thus, starting from this, the relationships in the international socialist work division can be developed and shaped for mutual advantage. To achieve this and to correspond to the changed production conditions in the 80's, the scientific-technological cooperation and the production cooperation in the area of microelectronics must be emphasized more strongly in the future. Here, one must pay more attention to the question, to what extent already existing production capacities of microelectronics can be used better than previously within the framework of international socialist work division, so as to counteract as much as possible a necessary expansion of the breadth of the assortment.

Dr. W. Heidel (ZIW) supported this explanation and pointed out that, within the framework of productive cooperation, it is possible to take into account the different interests of individual countries. For designing an effective collaboration, it should be important to include also within the international cooperation in this area such complexes as software development and preparation, selected rationalization and automation projects, which further enhance the economic power.

In his final remarks, Steinitz estimated that the discussion of the symposium, in which a large number of theoretical, economic-strategic, and economic political questions were raised, clearly indicated the great span of the effects, which the development and application of microelectronics has on the national economy. The fruitful interdisciplinary and inter-institutional collaboration in research and the practice of microelectronics was simultaneously reflected in this discussion. The symposium supposedly confirmed the basic direction of the production and theoretical researches in this area and pointed out the manifold tasks towards whose solution the economic-scientific research of the future must contribute.

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GERMAN DEMOCRATIC REPUBLIC

COOPERATION WITH MOZAMBIQUE IN FISHING INDUSTRY REVIEWED

East Berlin SEEWIRTSCHAFT in German Vol 15 No 2, Feb 83 pp 89-90

[Article by W. Mahnke: "Deep-Sea Fishing: GDR-Mozambique Cooperation in Fishing Industry"]

[Text] On 13 December 1976, a year after the founding of the People's Republic of Mozambique, "the government of the People's Republic of Mozambique and the government of the German Democratic Republic" signed "an agreement concerning cooperation in the area of fishing." Its main provisions were as follows:

--estimating the natural resources off the coast of Mozambique and their significance for the economy of the country;

--after the entire area had been prospected, concentrating exploration on the most important species of fish and fishing areas;

--setting up special research programs dealing with the kinds of commercial fish and crustaceans thus selected in order to acquire an overview as to their distribution in space and time, the evolution of the stocks, their size and possible depletion rate.

All these measures focused on organizing optimal fishing without at the same time exhausting the stocks. The results of these analyses are important both for the development of a national fishing industry and the granting of licenses to foreign fishing fleets.

The research that occurred before the foundation of the People's Republic of Mozambique dealt primarily with shallow areas; it was organized by the International Southeastern Atlantic Fishing Commission and carried out mostly by Portugal and Spain. But it was sporadic in nature and was geared mainly to the interests of the companies financing it. Thus, research reports and results were seldom published, so that there are very few documents available on this period. Therefore, it was necessary to reorganize the research work and to include not only the coastal zones but also the deeper regions of the shelf (down to 800 meters).

In the spring of 1977, the first group of experts began the preliminary work for the first exploratory trip of a fish-searching ship of the GDR in the

waters of the economic zone of Mozambique. These preparations were made both in the GDR and in the PRM and concluded in September 1977. Among the participants were student personnel of the Institute for the Development of Fishing Industry in Maputo and experienced members of the Institute of Deepsea Fishing and Fish Processing in Rostock. The following were the principal fields of activity between September and December 1977:

- ascertaining the incidence and distribution of pelagic species of fish, basic kinds of fish, and invertebrates between depths of 10 and 800 meters;
- localizing the most economical species and areas;
- establishing the characteristics of fishing areas and technical methods to be used there;
- analyses to determine production techniques and the methods to be employed in operating ships.

After this very first exploratory trip, evidence was obtained to the effect that outside the then traditional shallow shrimp-fishing areas there were at a depth of roughly 500 meters species of shrimp that were commercially usable with supplementary catches of consumer fish.

The second expedition of a GDR fish-searching ship in the fourth quarter of 1978 was devoted to:

- a continued exploration of the incidence and distribution of shrimp and fish at greater depths;
- more specific investigations of the characteristics of fishing areas;
- analyses of techniques employed in processing shrimp;
- establishing fishing techniques enabling shrimp to be caught in deeper areas of the sea.

The results of both expeditions were evaluated jointly and formed the basis of the conferences of the joint commission. It was agreed that the GDR would be licensed to catch commercially the kinds of fish that had been observed. At the same time both parties decided that measures were to be taken to maintain the stocks being depleted.

Conferences of specialists from both scientific institutions, the Institute for the Development of Fishing Industry in Maputo and the Institute of Deepsea Fishing and Fish Processing in Rostock, revealed that special research programs must be carried out over a longer period of time in order to maintain knowledge of the qualitative and quantitative changes caused by fishing the stocks of the species being analyzed. For this purpose the fishing research ship "Ernst Haeckel" of the Rostock institute was between March 1979 and February 1982 sent to the coastal areas of Mozambique on six expeditions lasting several months each. The research ship "Alexander von Humboldt" of the GDR Academy of

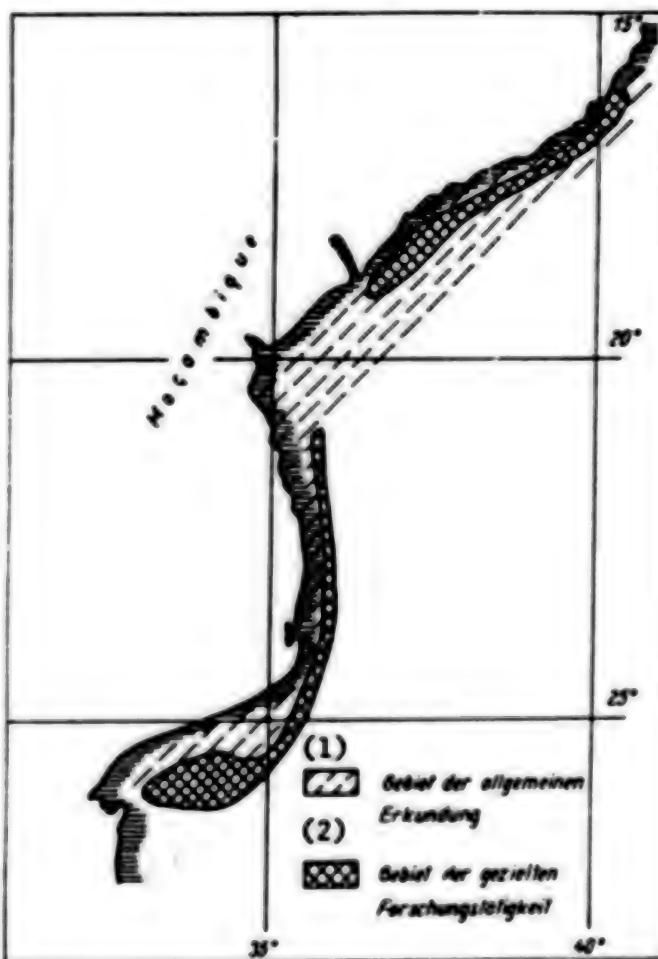


Bild 1. Einsatzgebiete für Fischsuch- und Fischforschungsschiffe
nach den Erkundungs- und Fischfangreisen im Jahre 1977 - 1982.

Mozambique

Figure 1. Area in which fish-searching and research ships were utilized during the exploratory and fishing research trips in 1977-82.

Key:

1. Area of general exploration
2. Area of special research activity

Sciences conducted a journey to gather basic oceanological data in 1980; this was done through the Institute of Oceanography in Warnemuende to set up the entire complex of research projects.

The first trip of the "Ernst Haeckel" was geared toward obtaining basic fishing data. The work was performed according to a uniform research program. In the following five expeditions, in accordance with this research program, a total of 6,534 square meters were explored with trawl nets at depths of 400 to 800 meters to discover what deep-sea shrimp and fish inhabited the area. Involved were 196 fishing stations. Simultaneously the most important oceanological and meteorological data were recorded. The aim of these five explorations was to calculate the "average available biomass" of the most important target animals, so that the fishing potential of successive years might be estimated. Representatives of the institute in Maputo joined in all the research trips.

The findings of all the explorations (especially those of the trawl-net operations) were evaluated at both institutes, presented at conferences, discussed and prepared for publication by the editorial staff. They appeared in Maputo at the beginning of 1983.

Whereas cooperation in fishing research in the first few years was governed by the accord between the two governments, there has, since 1980, existed an "agreement concerning cooperation in the area of science and fishing technology between the Institute for the Development of Fishing of the People's Republic of Mozambique and the Institute of Deepsea Fishing and Fish Processing of the GDR." All scientific-technological activities taking place between the two institutes are determined in annual plans based on this. The annual plans are worked out jointly for the following year, discussed, and adopted; thus they are always adjusted to the problems at hand. The agreement and the plans contain primarily the following provisions regarding the support given Mozambique's fishing industry:

- exploration and determination of further resources relevant to the fishing industry;
- submission of all research results gained in Mozambique's territorial waters to Mozambique;
- submission to Mozambique of the mathematical models used by the Institute of Deepsea Fishing and Fish Processing;
- submission to Mozambique of research on specialized literature;
- submission to the other party of the agreement, of findings in the development of fishing technology as well as of findings regarding underwater observations of the behavior of nets.

If matters of practical fishing research are in the foreground of this cooperation, one must not neglect to mention that this is only one form of cooperation in the area of fishing. Further meaningful steps and measures to support effectively the fishing industry of this country are the activities of

maintenance experts of GDR fishing combines in Mozambique, the training of Mozambique colleagues in GDR fishing units and the state-owned fishing enterprise in Rostock, as well as regular consultations and discussions between GDR experts and representatives of the National Fishing Administration and/or the State Secretariat for Fishing of the People's Republic of Mozambique.

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FISCAL SPECIALISTS INTERVIEWED FOR PRIZE WORK

Budapest FIGYELO in Hungarian 14 Apr 83 p 2

Interview with Dr Imre Boros, MNB [Hungarian National Bank] department head, and Dr Kalman Meszaros, MNB managing director, by Ivan Wiesel: "State Prize for Fiscal Work"; date and place not given]

[Text] The following people received the State Prize for outstanding achievements in organizing international financial relationships: Endre Bako, MNB managing director; Dr Imre Boros, MNB department head; Ferenc Horvath, MSZMP Central Committee deputy department head; Dr Kalman Meszaros, MNB managing director; and Istvan Szalkai, MNB department head. Ivan Wiesel, our reporter, talked with Dr Kalman Meszaros and Dr Imre Boros from among the prize recipients.

Question Many people do not know enough about the activity the MNB performs in the area of international finances. Now that the MNB's experts have received for the second time* the State Prize for outstanding performance in their activity in international fiscal matters, the increased interest in the bank's work related to foreign currency is justified. What are the MNB's tasks related to foreign currency?

Meszaros Basically the MNB has three functions in the area of international finances: as the country's central bank, it guards the country's foreign-currency and gold inventory, and sees to it that the foreign-currency means conforming at all times to the payment requirements are available in the appropriate quantity, composition, and on time. This means that one of the bank's main tasks is to ensure the country's international liquidity--including here credit operations as well. To fulfill its tasks as a commercial bank, the MNB creates those banking agreements which are necessary to reliably fulfill payments abroad. At the present time, we have such agreements with about 2,500 banks, which enables us to make payments anywhere in the world. In this role, the bank handles the implementation of export and import matters, and provides loans to finance these (exports). and it is also available to enterprises in connection with loans with its

* In 1980 Janos Fekete, the MNB's first vice president was awarded the State Prize.

advisory service. Arbitrage activity can also be listed in this category. And finally, the bank's third job is to handle foreign-currency-authority activities in those areas where it has accumulation. This means that the bank is the authority to grant funds for various purposes, and that is has broad supervisory authority over foreign-currency operations.

Question The MNB conducts foreign-currency arbitrage operations to take advantage of differences in exchange rates. What are its tasks in this area?

Meszaros The MNB has three tasks in this area also: first, it shapes the composition of the available foreign-currency reserves in such a way as to avoid and fend off losses which could occur because of changes in interest rates and fluctuations in foreign-currency exchange rates. Second, since the composition of foreign-currency receipts and expenditures is usually not identical, it takes care of the exchanges necessary to fulfill the payment obligations; and third, it makes appropriate and competitive business (exchange) offers available to foreign customers—primarily to banks.

Question Does the bank also conduct speculative operations?

Boros No, not in the classic sense of speculation. The bank primarily protects itself against losses, and this, of course—if successful—may also result in profit. But at the same time, exchanges made for customers produce only a modest profit. All over the world, banks treat this profit as a fee for the bank's services. And since the profit is modest, all banks try to handle as much conversion business as possible. And since there is also much competition among the banks for exchange business, only those who are faster, more accurate, that is, more able to handle the market at the moment have a chance to make a profit.

Question What is the condition for the ability to handle the market?

Meszaros There are several conditions for successful exchange operations: being informed, and based on this, that the bank be able to quote competitive rates from one moment to the next; a broad system of contacts, which the MNB now has; quick decisions, which presumes a high degree of independence for those who make the deals, or the dealers, to use the professional English term.

Question According to this, they don't decapitate the dealers if they occasionally produce a loss rather than a profit?

Meszaros The exchange business always involves risks which have to be accepted. Because of this the dealer not only produces a profit but may also lose. But the acceptance of risk must remain within the boundaries of reasonability, and of course an overall profit has to be achieved.

Question Our experience is that the technical conditions for gathering information are rather backward in this country, one has to wait a long time for an international telephone connection, and the telex links are also not fast. Under such conditions, how can the bank work successfully?

[Boros] Fortunately the MNB's technical conditions are much better. For example, the telephone lines are available with modern equipment and pre-programmed. The telephone numbers of several hundred constant bank contacts can be called by the press of a button, and the smart equipment even takes care of redialing the given number--if it is busy--several times automatically, or trying to contact a given party at several different numbers. It is extremely important that we are participating in the REUTER information system, which now in addition to the original exchange-rate of business-news service also makes it possible for the participating member banks to keep in touch through an electronic system. For example, we can call several hundred banks to a display on the picture tube, the called bank will appear within a few minutes, and the exchange deal can be made, which the typing equipment connected to the apparatus also reduces to a written record so that every sign and word is preserved.

This method is cheaper than the traditional telephone or telex, and it is also more reliable. We also use codes on the display screen, in which case each code may replace sentences. Speed is extremely important on today's nervous financial market, because there have been instances when exchange-rate changes of several hundred points can occur within minutes.

[Question] I think it would not hurt to show with a simple example, how such a conversion deal is born.

[Boros] Let us say a foreign bank approaches the MNB by telephone, telex or display screen and inquires what exchange rate we are using to exchange dollars for West German marks. At a time like this the exchange rates must be given in a way--this is the rule of the game among banks, and at the same time this is also where the difficulty lies because one cannot know what the other party wants to do, for example, buy dollars for marks, or sell dollars and receive marks. Of course the bank will quote buy and sell rates, but the margin between the two prices must be very modest if the bank wants to remain modest and competitive. Whether or not the margin will ensure a certain profit will come to light when the deal is made. This means that the bank, immediately or later, but still the same day sells the currency it had bought, or purchases the currency it had sold--that is, reestablishes its original position--and the exchange-rate difference between the two opposite operations will yield the result. The speed of handling the deal can be definitive here, especially if we want the risk of exchange-rate changes to exist for as short a time as possible. For the sake of easier understandability perhaps we can use an example to illustrate what I just said. If someone buys dollars from the bank for 2.395 DM and at the same time we succeed in buying it for 2.39 DM for another seller, then the gross profit for the exchange--the arbitrage--operation is about 0.2 percent, or 50 points. This margin appears to be small, but since such deals reach the order of magnitude of several million dollars, it is not negligible. In our example, the profit for a \$1 million deal is 5,000 DM, while the cost is minimal.

[Question] With the information systems the banks now have, why do differences develop in the exchange rates?

Boros] While it is true that the flow of information is very quick, the exchange rates of the market also move very quickly. Rates change from one minute to the next, and thus opportunities are always generated to take advantage of the difference in exchange rates. Nowadays this occurs primarily not in terms of geography but in terms of time. For example the dollar-to-mark rate is different at 10 am and at 2 pm. And in some cases the difference is several percentage points. Taking advantage of this is the secret of the dealer's "art," and this is what makes very quick reaction necessary—and in a given case—the high speed of the operation. It is interesting, for example, that due to the difference in time zones, the changes in exchange rates are liveliest when the banks are still open in Europe and have already also opened for business in the United States.

Question] Who can keep up with this speed with nerves, and who can accept the risk?

Boros] Young and well-trained personnel handle the bank's exchange deals. Everyone in the department is under 40 years of age. The burden on one's nerves is truly very great. But the awareness of vocation and the desire to produce results are great also. Up to a certain value limit, each dealer is independent in making deals. The risk of the operations is universal, so that one can lose too, not just profit. But a good professional does not lose over the long range. My fellow workers work in such a way that when the balances are prepared, even by weekly accounting, they make profits. But this involves a daily stress which requires a whole person.

Question] This profession requires not only preparation but also instinct. Can this be improved?

Boros] Sensings are important in this profession. But in general the source of good sensing is professional knowledge, and being perfectly informed. Thus the instinct is always growing, yet not all currency professionals are suitable for this career. Quick thinking and the ability to make decisions are of fundamental importance here.

Question] What do you consider the most important stage of the work?

Boros] Selecting the exchange rates and the concepts of the business. Selecting the exchange rates will determine how well we are able to participate in the market, and the business concepts define in which currencies the bank wishes to store its assets. If the two complement each other well, we can expect success.

Question] Each week the bank publishes currency-exchange rates. Many enterprises complain that the forint's rate is changing. What can you suggest to the enterprises so that they would better be able to take advantage of the given exchange-rate mechanism, and what advance indications can the bank furnish about the main tendencies of the expected changes?

Meszaros It would also be my desire to be able today to read tomorrow's papers and the foreign-currency exchange rates in them, which—as we know—in the Western world change daily, and within each day practically from one minute to the next. This, of course, is impossible. And it is also impossible for any bank in the world to publish the expected changes of the currency exchange rates in advance. But the banks, the research institutions, and trade magazines do publish exchange-rate prognoses, and unfortunately often contradictory ones, to which the enterprises may also contribute. Naturally they accept no responsibility of any sort for the predictions. The Business and Market Research Institute, and also the MNB prepare such predictions.* Of course the predictions relay information primarily about certain expected directions, from which the enterprises may also reason the exchange rates of the forint, since we determine it on the basis of the cross exchange rates of the convertible currencies.

Boros I think the exchange rate problems of the enterprises derive from their inability to get used to the practice which made the exchange rates a category in managing the businesses. They would like to work in the future as they did in the past when the risks of exchange-rate changes did not affect the profit of the enterprise. Therefore there is a need to change the approach.

Question The exchange rate risk is there now in the operation of enterprises; is it possible to defend against it?

Meszaros Yes, with exchange-rate insurance. There is a uniquely advantageous insurance system in operation in Hungary because it pays in the case of exchange-rate losses but does not take away exchange-rate profits. In addition to this, the enterprises may also make deadline deals with the bank.

Question Is there an example for this?

Boros Yes. The foreign-trade enterprises are taking advantage of this opportunity; the production enterprises are not using it yet.

Question How can importers protect themselves against exchange-rate changes?

Meszaros This cannot be solved for the time being. I imagine the insurance system could be expanded to cover this also, because if the AB State Insurance Enterprise offered insurance for exports as well as imports in the same currency, its risk would be limited only to the extent of its open position, which would decrease its risk in comparison with today's situation. I think most of the exchange-rate problems of the enterprises can be solved when the forint becomes convertible. If the enterprises can make

* Twice each year the Business and Market Research Institute KPI in cooperation with the PM Ministry of Finance, the MNB, and the OAH National Material and Price Office publishes exchange rate predictions in 350 copies for the enterprises.

foreign-trade deals also in forints, there will be no exchange-rate risk--at least not directly in forints. Of course, the daily exchange-rate quotation will also have to be introduced among the forint's circumstances of convertibility, and the exchange rates with deadlines will also have to be quoted. and in general the deadline operations will have to be given a greater role in protecting against exchange-rate risks.

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MONETARY POLICY ASPECTS OF ECONOMIC REFORM DISCUSSED

Warsaw SLOWO POWSZECHNE in Polish 21 Mar 83 p 5

[Article by Janusz Weiss: "How Does Reform Square with Finances?"]

[Text] The growth of money reserves of the population in the past year amounted to over 390 billion zlotys. It was by 110 billion zlotys larger than in 1981, and by 360 billion to 370 billion zlotys larger than in the years of a relatively decent market situation. What will it be in 1983, even if one considers nothing but the initially assumed increases in prices (up to 15 percent) and in population incomes (about 16 percent)?

The state's financial budget will have to be balanced, again, by issuing inflationary money. As follows from statements by the Ministry of Finance, in this case the balancing effort will be reflected in a 300-billion zloty increment in Polish citizens' monetary resources, in continued drastic imbalances in supply and demand, in an enormous extent of state control over commodities, in a tight situation and arbitrary distribution of raw and intermediate materials and, to some extent, in an increase in foreign debt from 2,115 billion zlotys to 2,370 billion zlotys (these figures correspond to the official conversion factor of 86 zlotys to a U.S. dollar).

True, the plans refer to a reduction of the budget deficit to 150 billion zlotys. However, it is assumed, rather optimistically, that budget revenues will increase by 250 billion zlotys, i.e. more than 11 percent, despite a barely moderate (2-2.5 percent) growth of national income and industrial production (4 percent). This optimism stems from a radical improvement in management efficiency related with the mechanisms of economic reform, which should yield more substantial effects in its second year. Such hopes which imply that finally these mechanisms will "click" and the reform will produce its early solid results are bound to raise scepticism. Why?

Because the enormous inflation gap tends to regenerate itself, due to the state's inadequately reformed financial system and continued conduct of an easy money policy, among other reasons. Indeed, that policy is blocking the reform because, unless money is tight, economical streamlining of activity on all levels of economic management is out of the question.

This is what many economic activists have forgotten in their crazed assault on resolution 186/82 and the right of enterprises to set their own wage rates. Yet it was not that right, but the above-mentioned absence of streamlined actions resulted in excessive disbursements last December and, more importantly, the so-called cumulative effect provoked by the ill-advised resolution 186/82. I would tend to look for the causes of this effect not so much in a dulling of the FAZ [Vocational Activization Fund] guillotine as in the second semester of 1982, as in the shortcomings of the financial system and in its disintegration caused by a lack of incentive for efficient management.

Economic reform is expected to create such incentives. They are being destroyed, however, by a lack of assessment of different decisions (e.g. resolution 186) and by the totality of administrative and financial substitutes for a market mechanism. Between an economic system which should now be implemented under economic reform and the financial system, there is an abyss. This year's revisions of the 1982 system are cosmetic in nature and affect nothing but prices and their financial aspects.

At the same time, Ministry of Finance representatives declare they are "meeting enterprises halfway on their stipulations" and assert that implementation of reform mechanisms will be bolstered by mitigation of income tax progression in upper brackets of profitability and by a system of reliefs affecting this tax. They add in one breath, however, that things will really go bad if mitigated tax progression is reflected in accelerated spending outlays on wages for, if such is the case, market tensions will be aggravated further.

That minimal mitigation of tax progression and income tax relief are beneficial, to be sure, but they are marginal gains in comparison with losses resulting from a faulty structure of that tax, including its progression on profits and the adopted standard of progression. In fact, the revisions of the 1983 financial system contain (besides welcome items like the change of principles for computing FAZ contributions--the former principles were ludicrous) many other solutions lethal from the point of view of economic reform. They are particularly deadly in the area of pricing, "penalizing" high profits, particularizing the instruments to be applied, complicating the financial system, increased authority of sectoral ministries to differentiate and interpret individual rules under the system, and proliferation of sectional incentives with concurrent "neutralization" of artificial categories such as profit.

In this course is maintained, it will be ultimately necessary to pay serious attention to more or less drastic measures to restore currency to its proper role of circulating currency, means of payment and measure of value. Increasingly, references are made to new, major increases in the prices of certain "less needed" articles, in other words, increases completely divorced from the necessity of gradual decentralization of price-setting and a radical improvement in price ratios. Occasional hints are even being made to the effect that it will be necessary to revert in general to past methods, i.e.,

to increases in the prices of goods and services with no revalorization, or with only partial revalorization, of savings.

Also, there is no lack of claims that--in order for the reform to "click" at long last--it is necessary to assure enterprises of genuine autonomy and to put an end to unrealistic cost-effectiveness calculations, to curtailment of opportunities for economic decisionmaking, and to instability of premises for decisionmaking. This must be done immediately and thoroughly, either via a nonequivalent, partially-deferred exchange of currency, or else applying an exchange of currency as suggested by Albinowski. Of course, the authorities have for some time now been denying all rumors about an exchange, which is not to say, however, that there are no economists or commentators who would neglect to consider this option seriously.

So long as this is still possible, it is necessary to seek salvation in a comprehensive restructuring of the financial system, which is indispensable for instituting a management system consistent with the letter and, more importantly, the spirit of economic reform. In other words, more than a anti-inflationary or savings program is at stake. The concern is not with more or less provisional measure counteracting growth in the inflationary gap. The point is to get a new financial system and a policy of "tight money." Incidentally, while there are a fair number of comments on that policy, the issue of a new financial system somehow has failed to gain due recognition.

The famed "solutions for the transition period" intended to further implementation of the reform though differing from the ultimate solutions, failed to meet expectations. It is most deplorable in my opinion that neglect was accorded (especially during the first period of economic restructuring) to implementation of the most important component of the reform, i.e., reduction of the supply of money and gradual restoration of money to its proper function by phasing in improvement in the economy's monetary commodity relationships. That improvement was not to be revolutionary but consistent, effected on many levels within the economic, financial organizational and psychosocial spheres, including: relatively rapid restructuring of currency and credit machinery, modifications in the state budget composition, utilization of the population's financial reserves, and changes in the local currently effective system of budgets.

Above all, taxes should be levied on means of production, land, and structures built on that land. Interest rate on wage funds should be identical in all sectors of the national economy, and the interest charged should absorb all contributions from wage funds to central budget.

These should be primary accounts for clearings between enterprises and the central budget. Turnover tax would apply only to certain luxury articles and selected alcohol and tobacco products. A major acceleration is needed in the process of elimination of any and all deficit production and subsidies, while enterprises should be granted the right to uncontrolled distribution of profit. Along with this, the proportion of profit that is designated for development financing should be totally tax-exempt. A very

low progression in taxes on the portion of profit designated for increases in wage funds and employee bonuses should be introduced, so that employee interest in maximizing the difference between cost and effect is stimulated. It would be even more effective if a linear tax on the "wage-fund" portion of profits is introduced or, provided that means of production are very heavily taxed, if tax on profits is totally abolished. In any event, it is necessary to restructure current income tax comprehensively, as profitability is taken in it to mean the profit-to-processing-cost ratio, which results in absurd consequences known as flight into costs.

That flight into costs, i.e., enterprise interest directed to cost increases rather than cost reduction is forced not only by the structure of income tax. It is also forced by the numerous regulations, together forming our current financial system. This is precisely the reason why all efforts meant to improve the country's financial standing are encountering major obstacles while the streamlining of activities of the economic decisionmaking center, ministries, associations, and enterprises continues to be wishful thinking. And all of these shortcomings are caused by printing excessive quantities of currency. What is known as debased money prevents the "clicking" of the economic reform mechanisms, although the Ministry of Finance regards the "clicking" as the precondition for restoring the zloty to health.

Is this a vicious circle? Of course. It is possible to get out of it, but it takes the will.

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